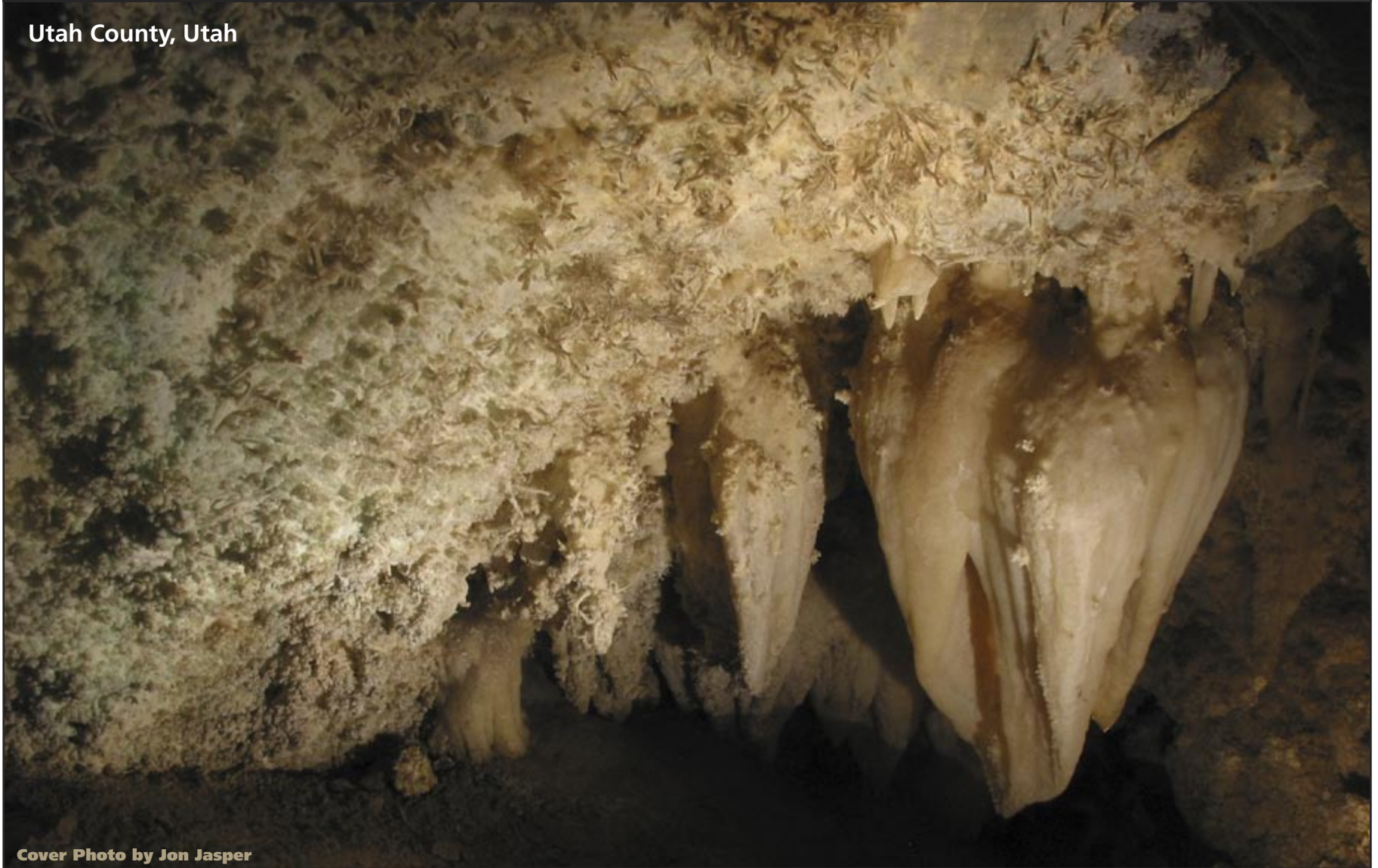


# TIMPANOGOS CAVE ATLAS

**Brandon Kowallis**

Utah County, Utah

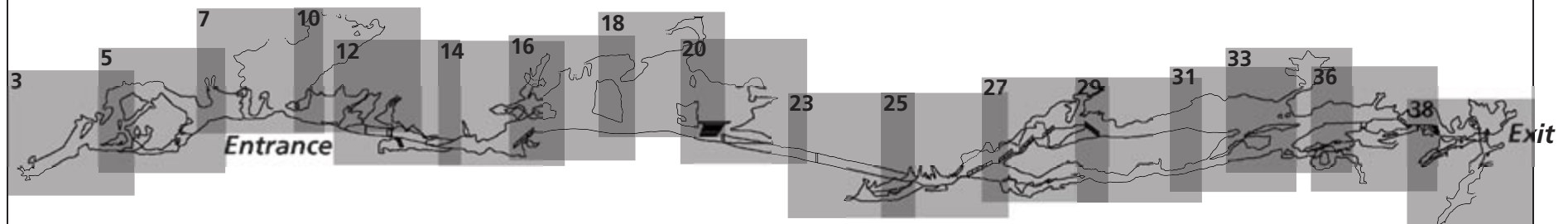


**Cover Photo by Jon Jasper**

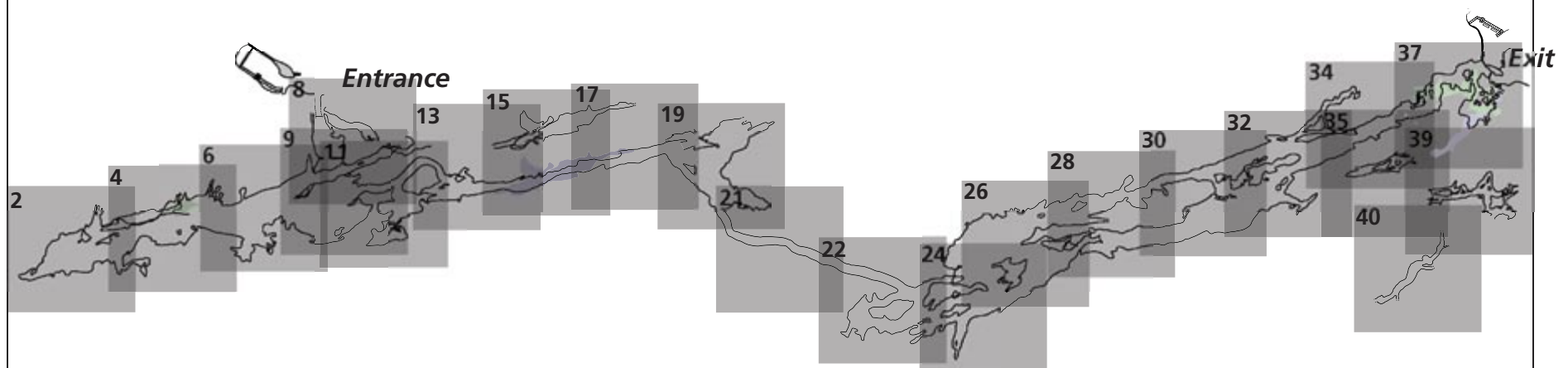
# TIMPANOGOS CAVE ATLAS

Brandon Kowallis

## Profile View North

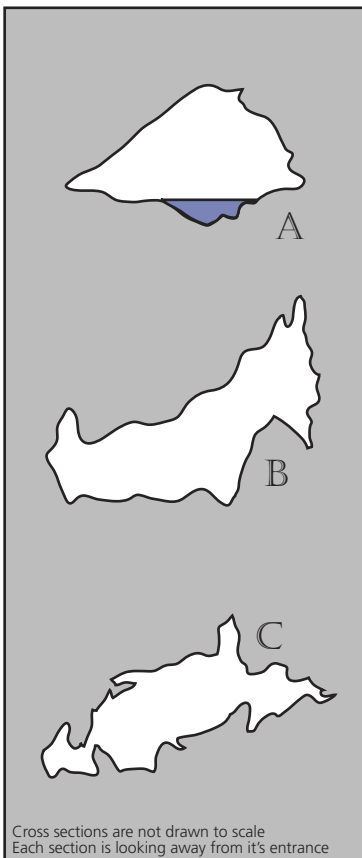


## Plan View



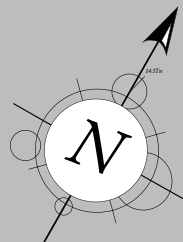
This atlas has been created from the full scale map of the Timpanogos Cave System in order to provide a quick and easy to use reference guide of the cave for resource management and maintenance purposes, as well as to help answer questions regarding the behavior of the many restricted areas. **It is not to be used as a navigation guide for recreational caving. Never venture off the main trail unless you have a good reason that is both approved by the Monument Supervisors and beneficial to the cave.**

Each gray square quadrant above is numbered according to a page in the atlas. The plan view is a birds-eye view and the profile view is a side view. Each page contains the expanded section of the map, a photograph of the area, a scale bar, a north arrow for plan view sections, a small map showing the quadrant you are viewing, and a legend explaining the symbols used throughout the atlas. The Timpanogos Cave System was surveyed by Rodney D. Horrocks from 1991 to 1993 and the map was created, designed, and drafted during the summer of 2003 by Brandon K. Kowallis.

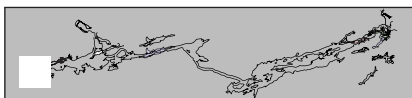


Resource Management stands at the back of Hansen Lake during low water levels. NPS Photo

**Brown Arrows** indicate where the photograph was taken and the direction the camera was pointing when the images was shot.



## Hansen Cave Plan View



Continued on Page > 4

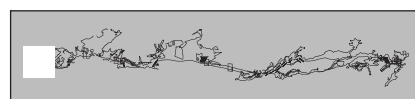
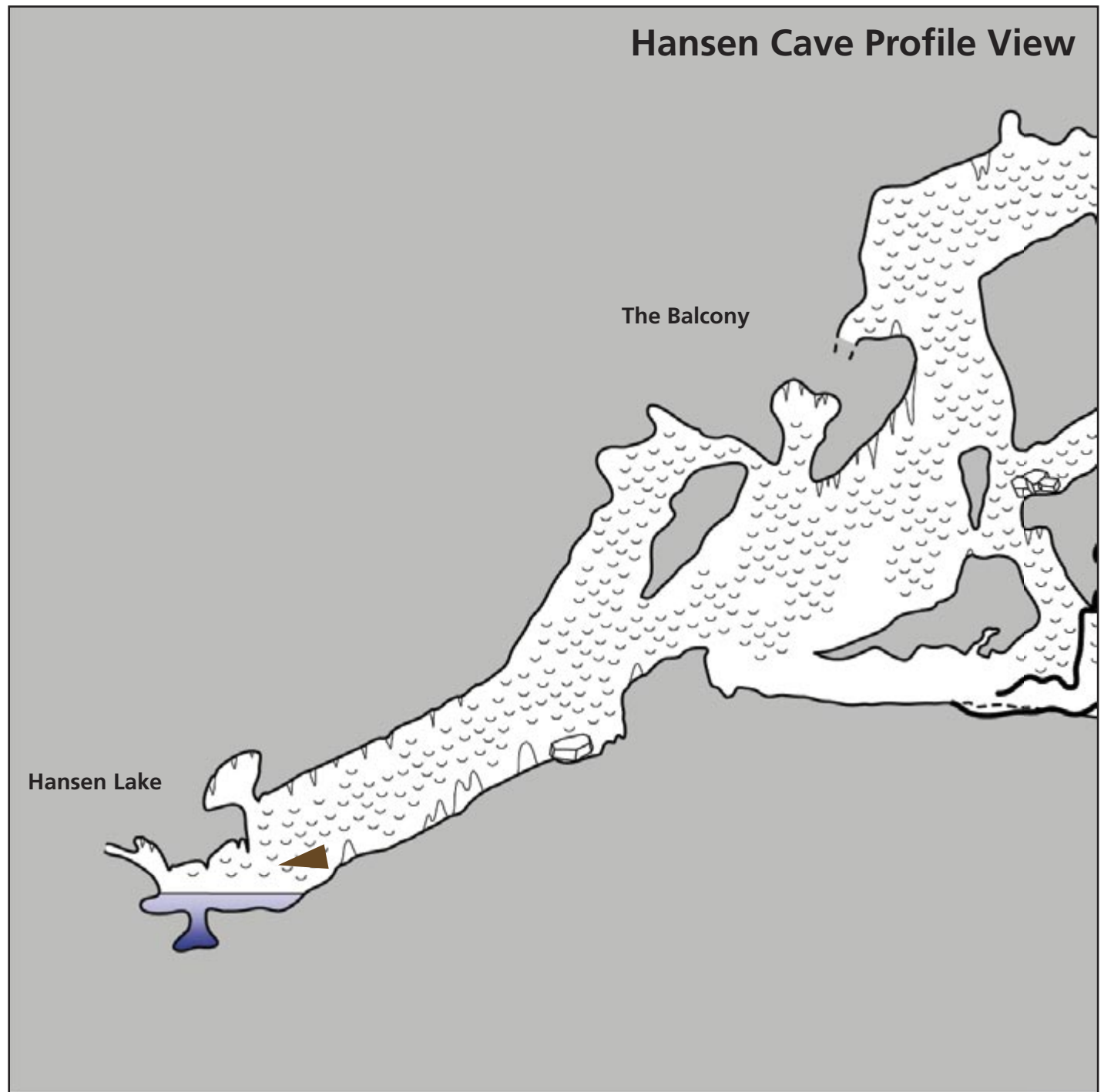


# Legend

Flowstone	—
Ledge	—
Stalactite	▽
Stalagmite	⬢
Helictite	⚡
Pool	—
Main Trail	—
Intro to Caving Trail	—
Rocks	⬢
Boulders	⬢
Slope	⬢
Pit	⬢
Column	⬢
Ceiling Ledge	—
Ceiling Dome	⬢
Silt	⬢

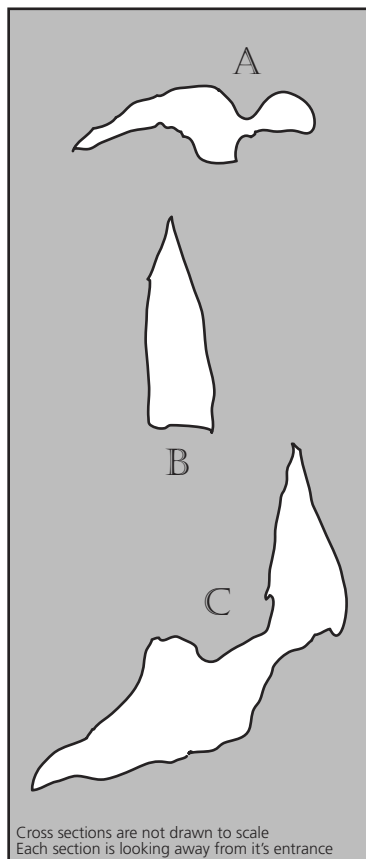


Hansen Lake at high levels. NPS Photo.

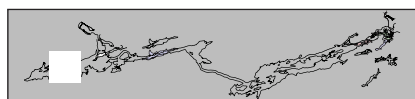
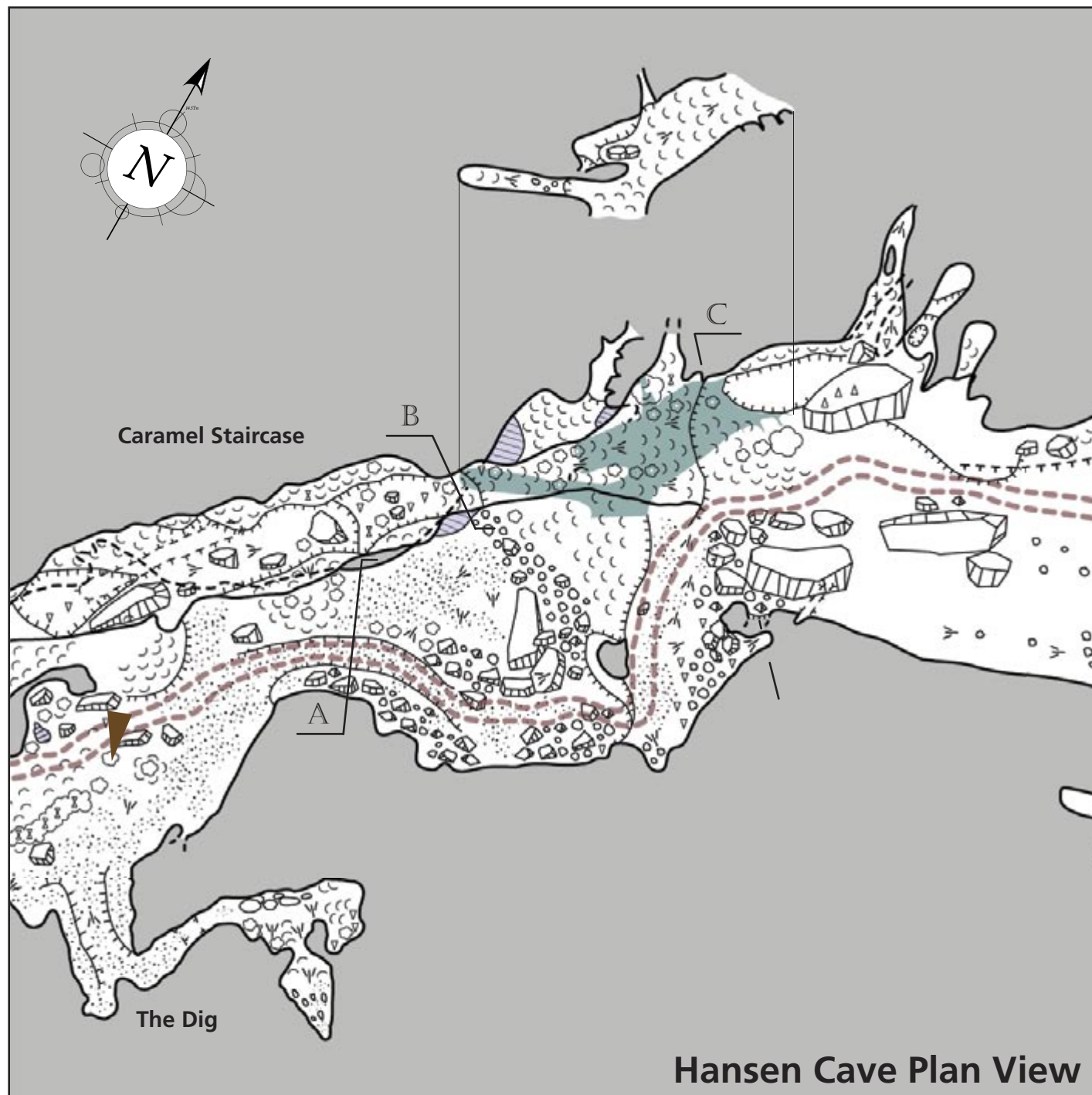


Continued on Page > 5





Just behind these columns is where The Dig area is located. Rod Hor-rocks dug this out during the 1990's cave survey. NPS Photo.



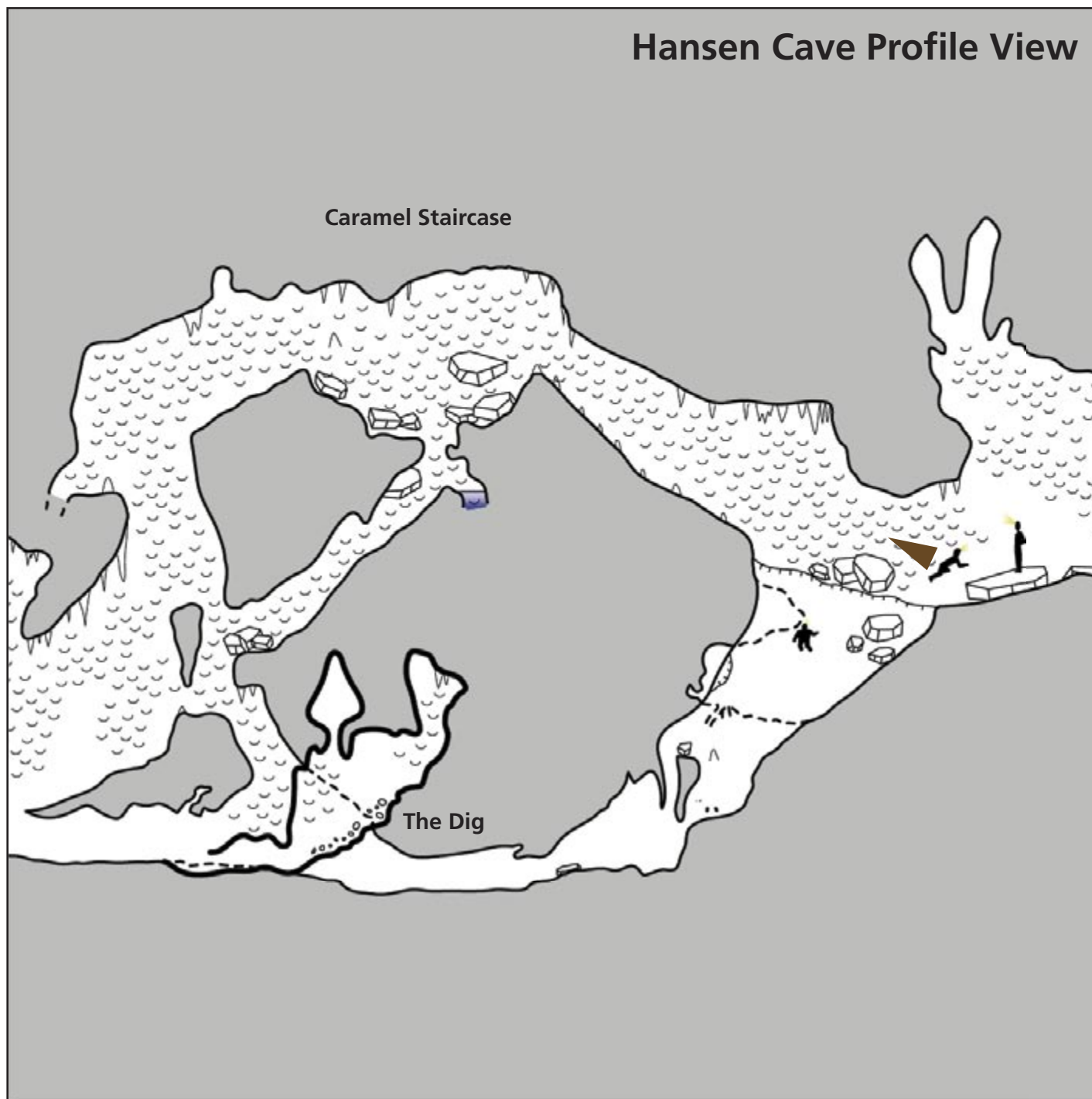
2 < Continued on Page > 6

# Legend

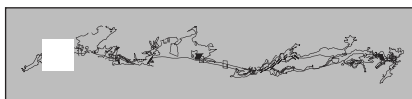
Flowstone	~
Ledge	—
Stalactite	∇
Stalagmite	⊕
Helictite	§
Pool	⊖
Main Trail	—
Intro to Caving Trail	- - -
Rocks	•••
Boulders	⬢
Slope	⋈
Pit	⊙
Column	⋈
Ceiling Ledge	—
Ceiling Dome	⊙
Silt	•••

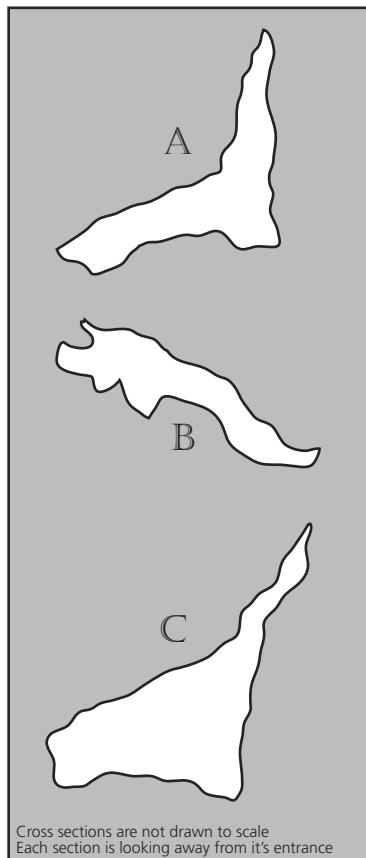


A view up into the Caramel Staircase as seen from the Introduction to Caving trail. NPS Photo.



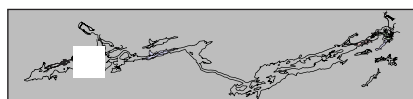
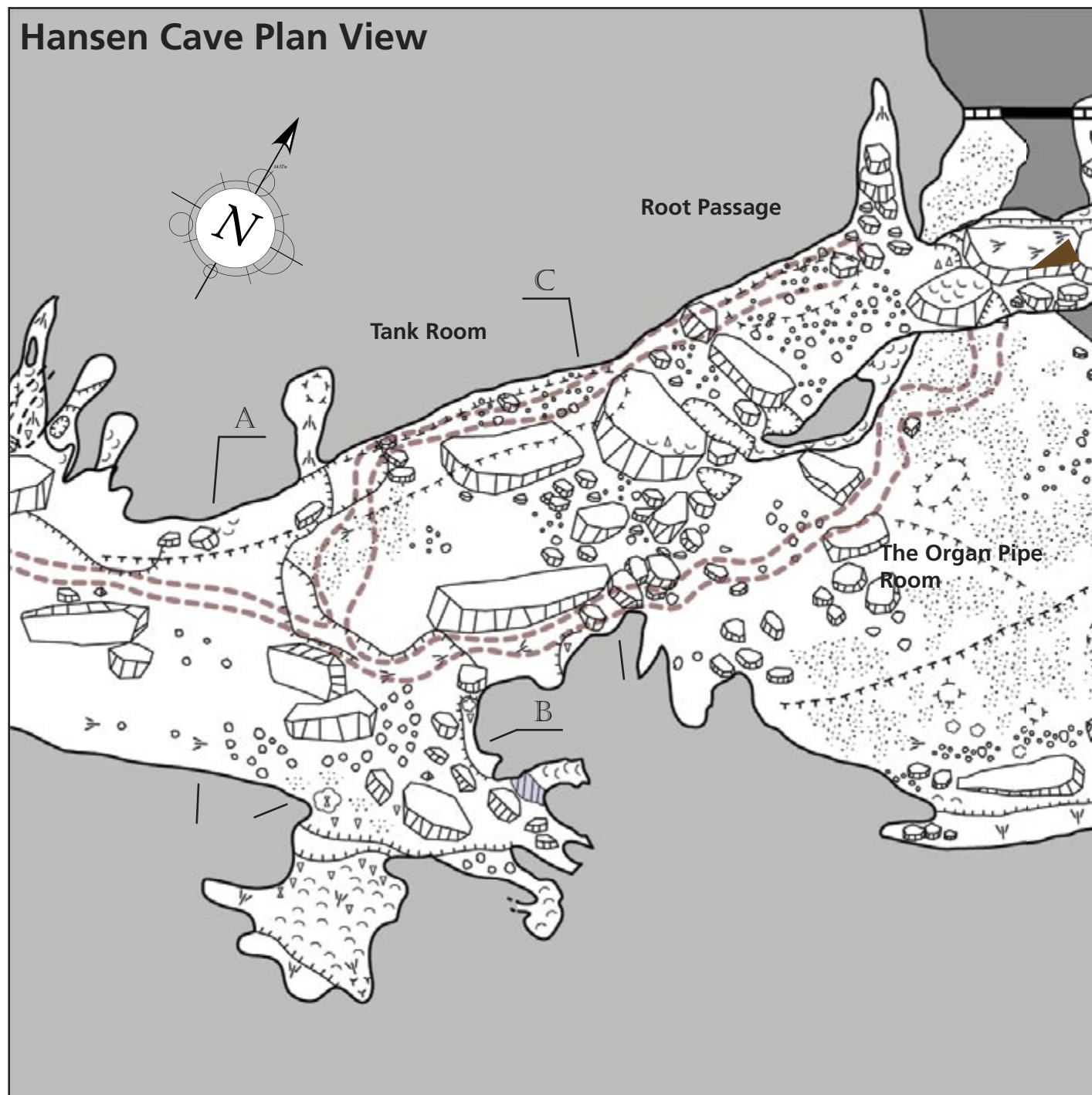
3 < Continued on Page > 7





Jon Jasper navigates through a section of the Root Passage. NPS Photo.

## Hansen Cave Plan View



4 < Continued on Page > 8 and 9



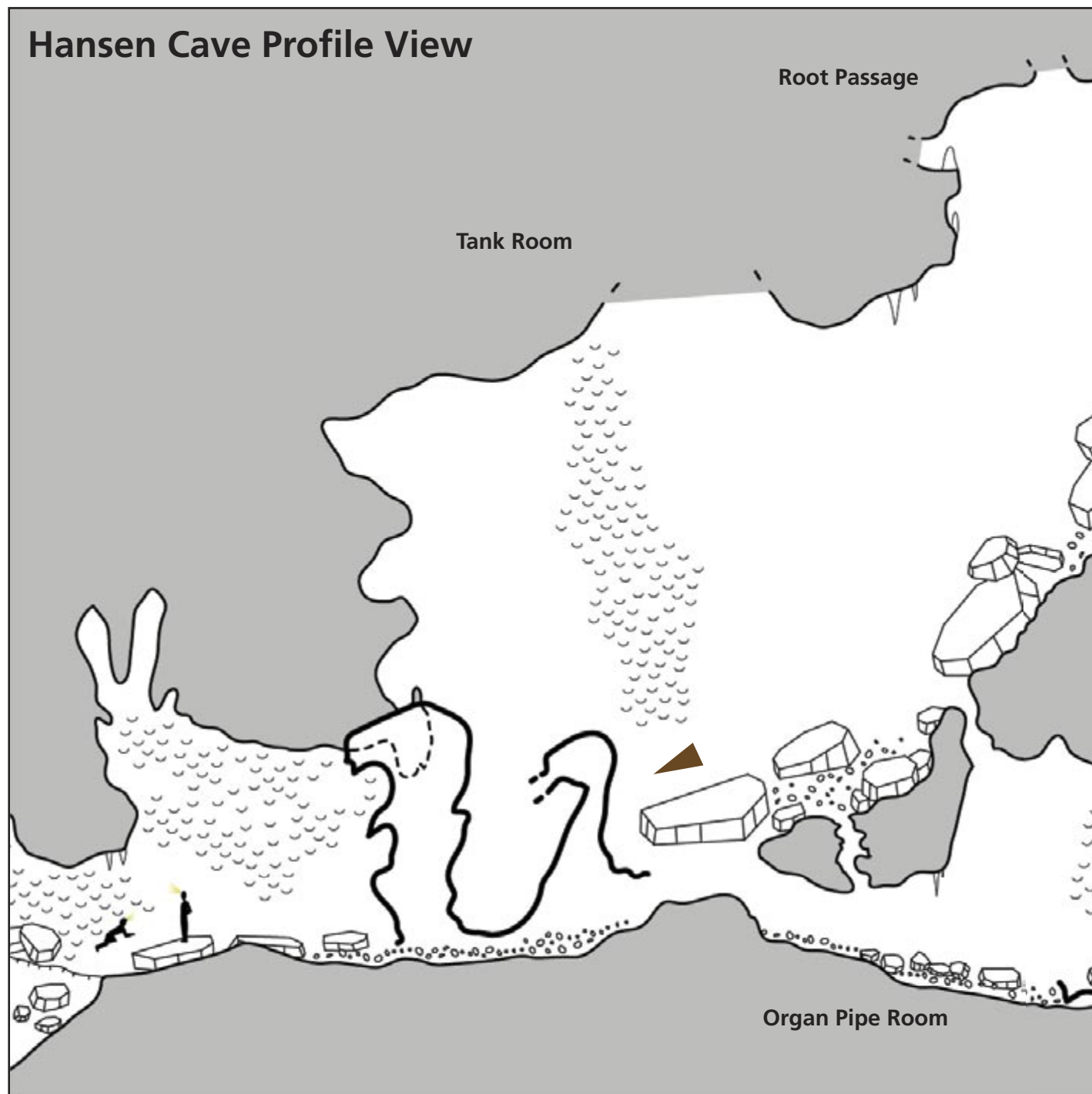
# Legend

Flowstone	—
Ledge	—
Stalactite	▽
Stalagmite	⬢
Helictite	⚡
Pool	—
Main Trail	—
Intro to Caving Trail	—
Rocks	⬢
Boulders	⬢
Slope	—
Pit	⬢
Column	⚡
Ceiling Ledge	—
Ceiling Dome	⬢
Silt	⬢



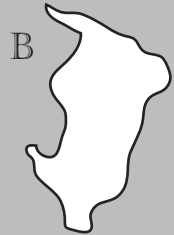
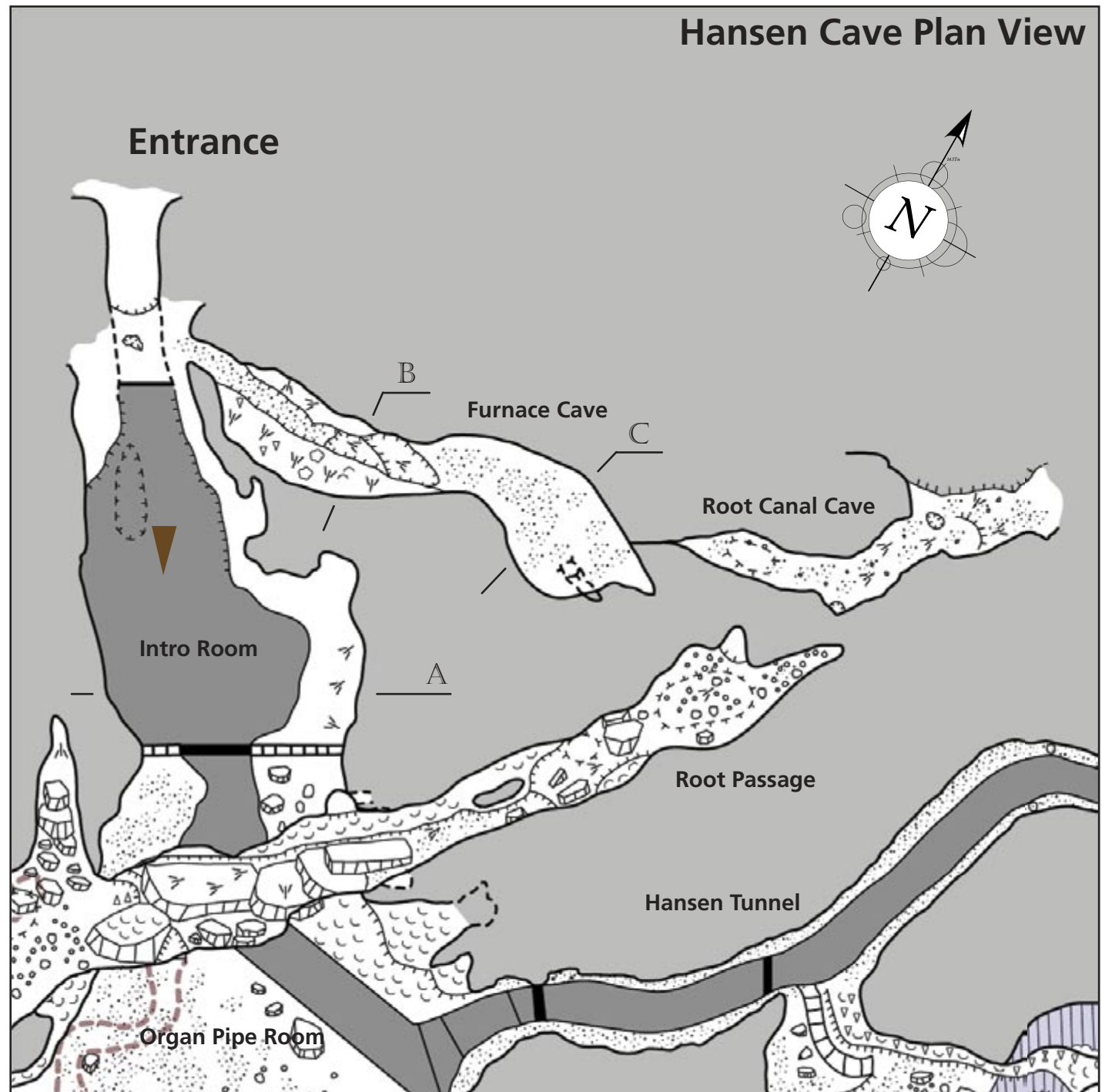
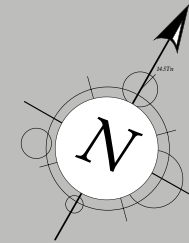
Jon Jasper standing on the Introduction to Caving trail in the Tank Room. NPS Photo.

## Hansen Cave Profile View



5 < Continued on Page > 10

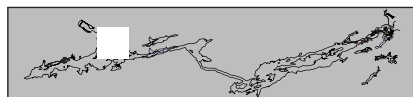
# Hansen Cave Plan View



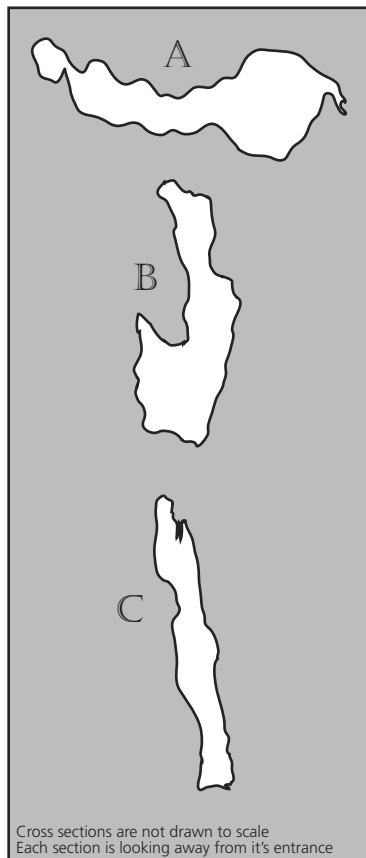
Cross sections are not drawn to scale  
Each section is looking away from its entrance



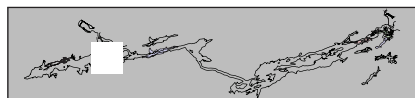
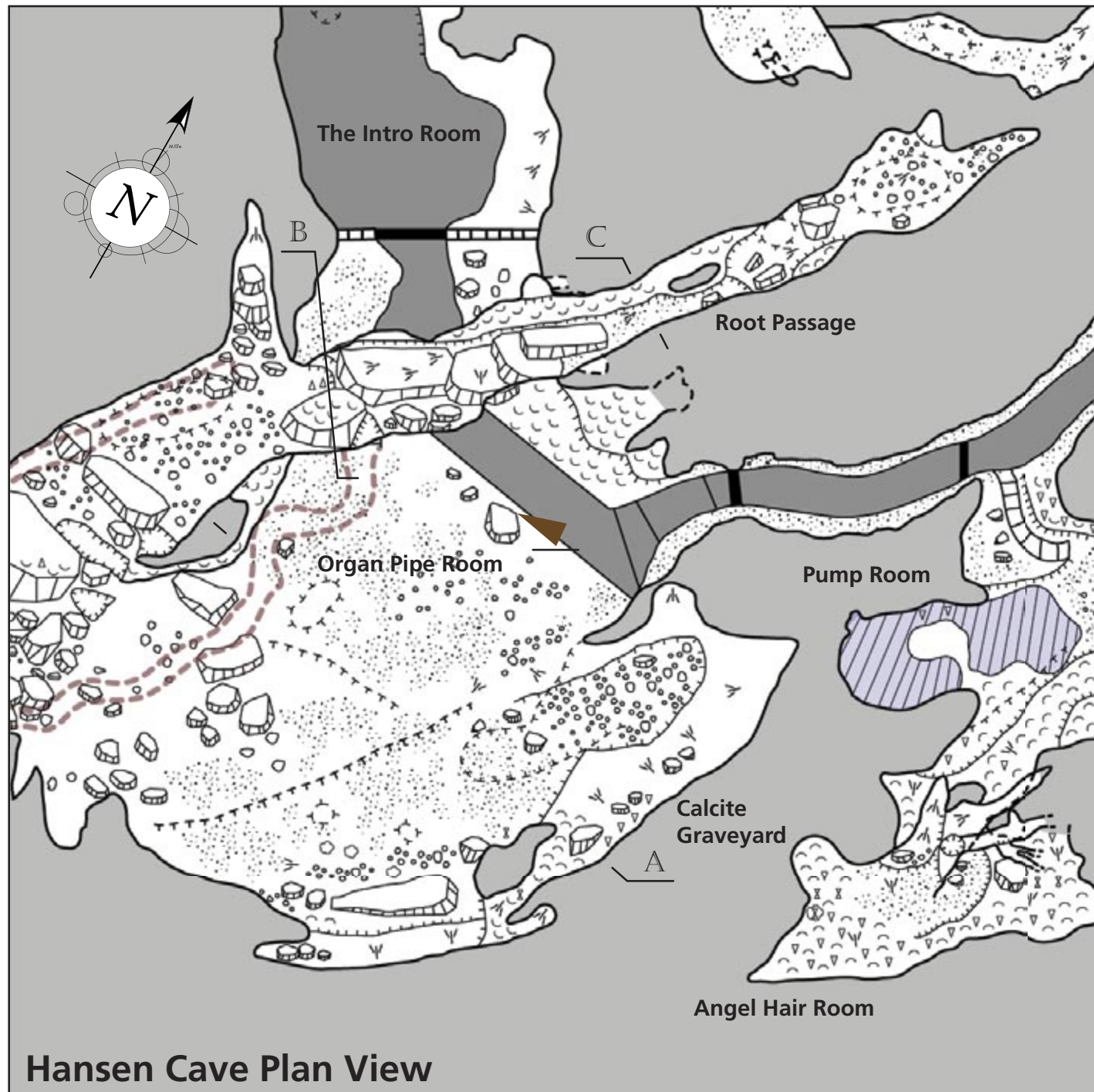
Hansen Cave entrance gate in the Intro Room. Photo by Brandon Kowallis 2003.



6 < Continued on Page > 11



The Organ Pipe formation in the Organ Pipe Room of Hansen Cave.  
Photo by Brandon Kowallis 2003.

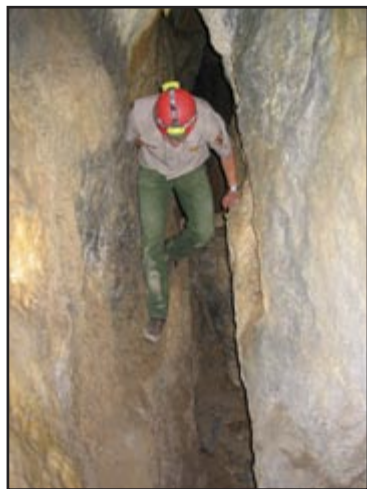


6 < Continued on Page > 11

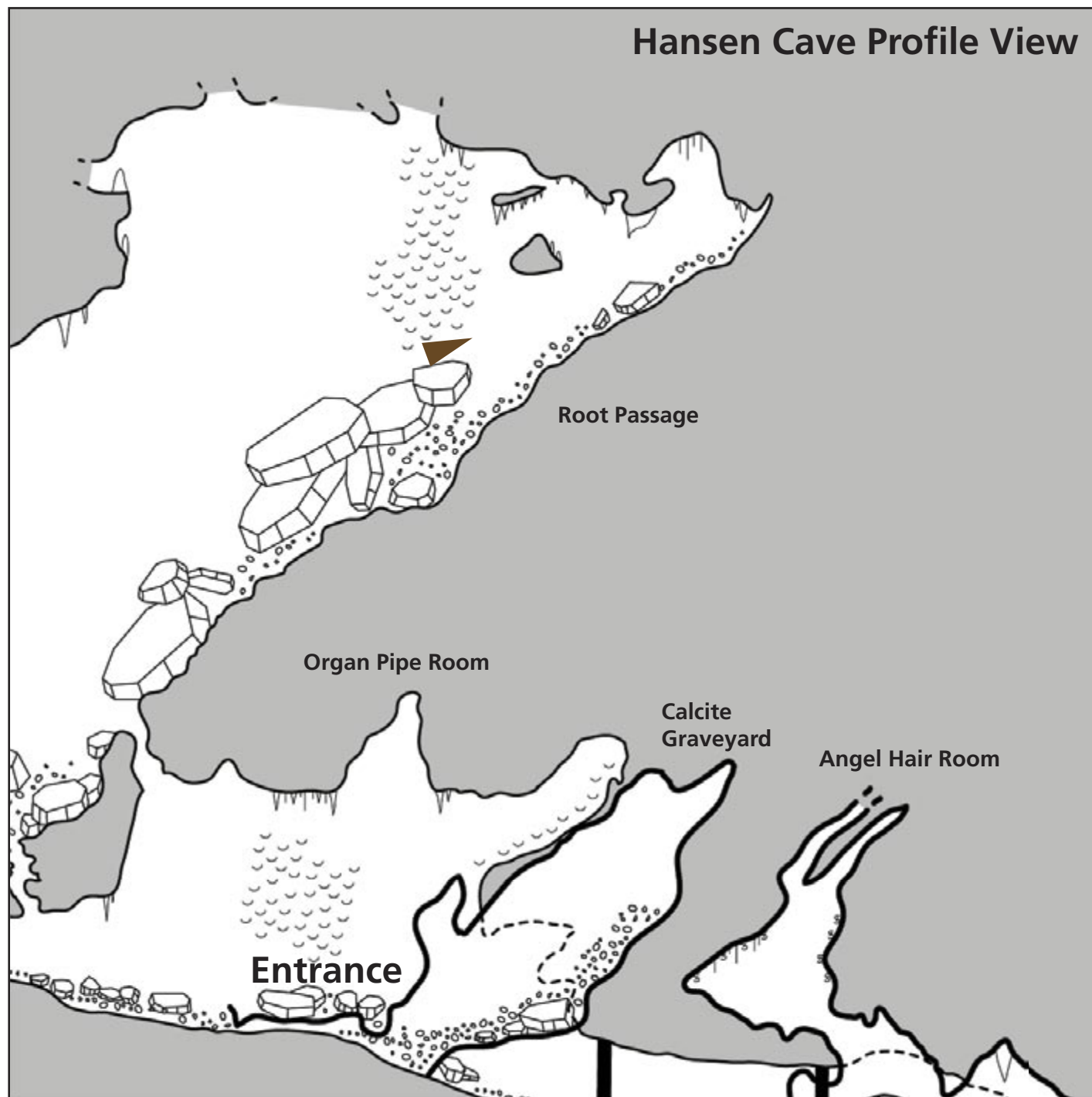


# Legend

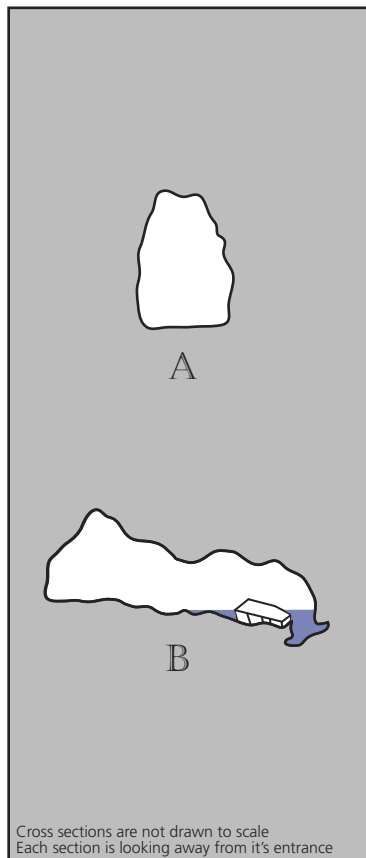
Flowstone	~
Ledge	~
Stalactite	▽
Stalagmite	⬢
Helictite	⋈
Pool	⬢
Main Trail	—
Intro to Caving Trail	- - -
Rocks	•••
Boulders	⬢
Slope	⋈
Pit	⬢
Column	⋈
Ceiling Ledge	~
Ceiling Dome	⬢
Silt	•••



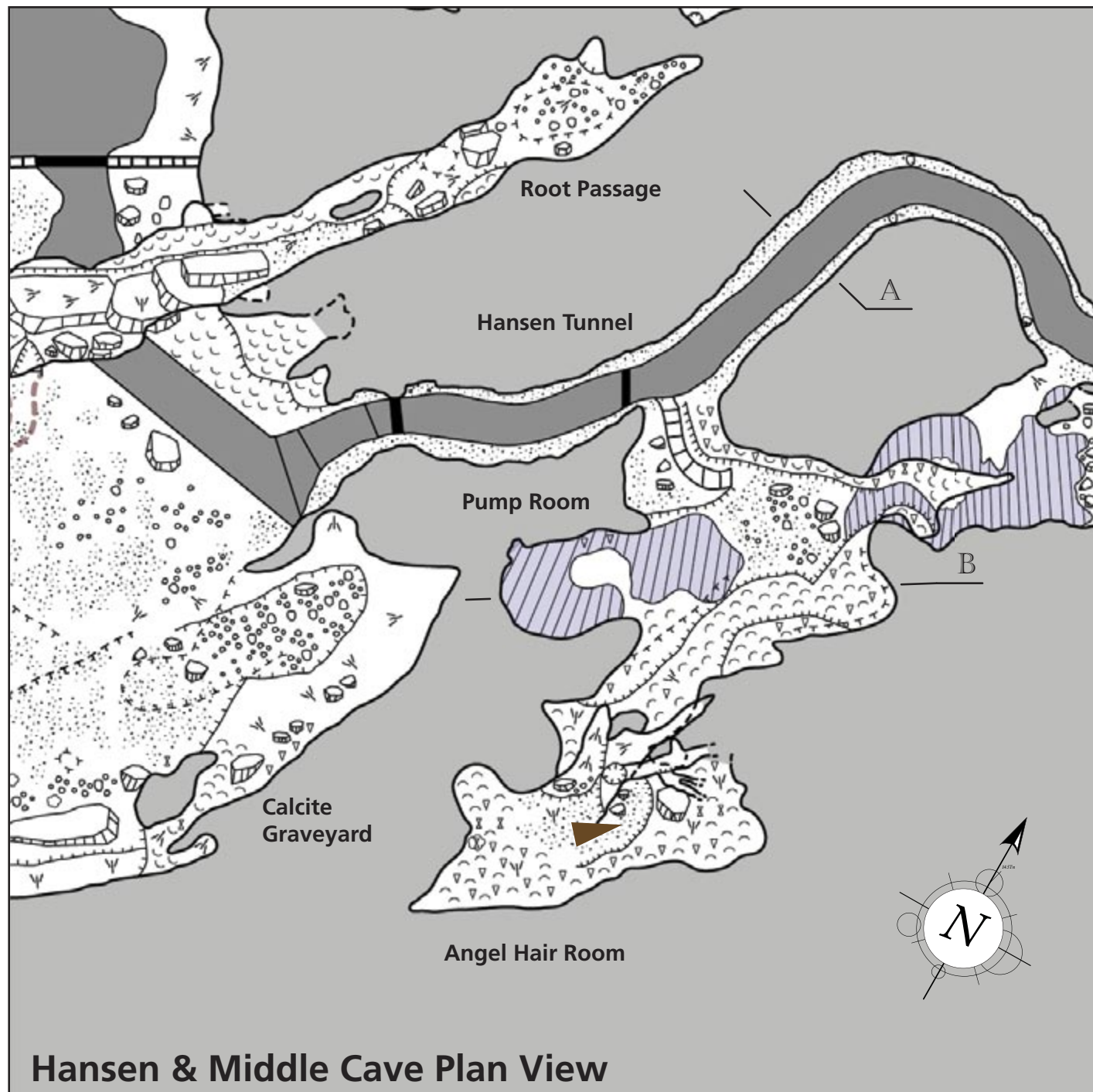
Jon Jasper maneuvering through upper section of the Root Passage.  
NPS Photo.



7 < Continued on Page > 12



Helictite covered stalactite in the Angel Hair Room of Middle Cave.  
Photo by Brandon Kowallis 2003.



8 and 9 < Continued on Page > 13

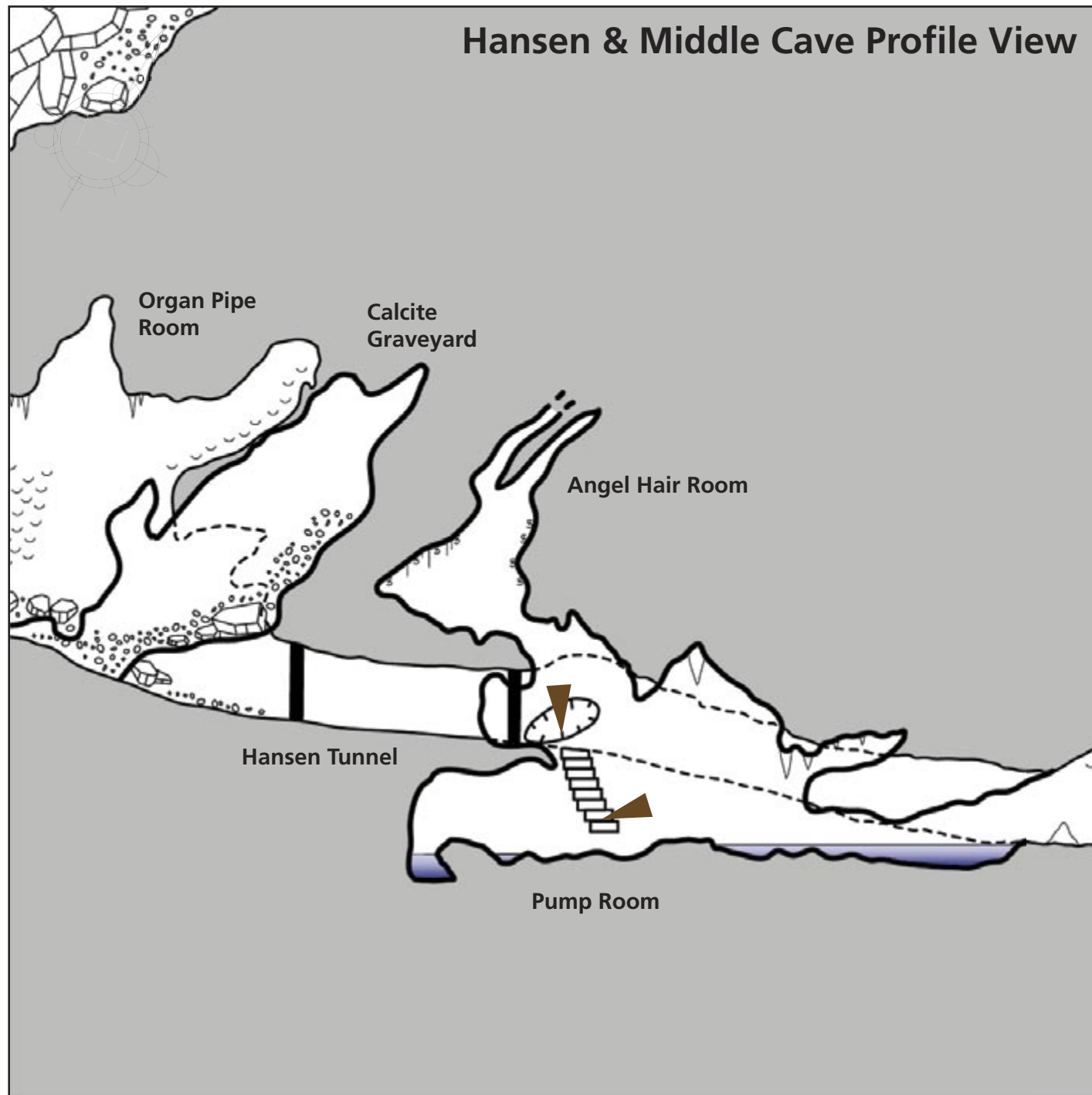
# Legend

Flowstone	—
Ledge	—
Stalactite	▽
Stalagmite	⬢
Helictite	⚡
Pool	—
Main Trail	—
Intro to Caving Trail	—
Rocks	⬢
Boulders	⬢
Slope	—
Pit	⬢
Column	⚡
Ceiling Ledge	—
Ceiling Dome	⬢
Silt	⬢

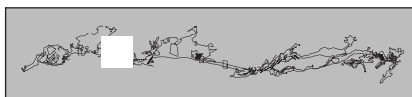


The Pump Room at the bottom of the stairs (top) and as seen from the main trail (bottom). NPS Photo.

## Hansen & Middle Cave Profile View

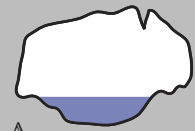


7 < Continued on Page > 14





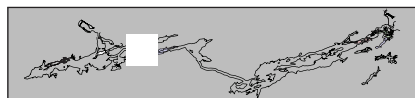
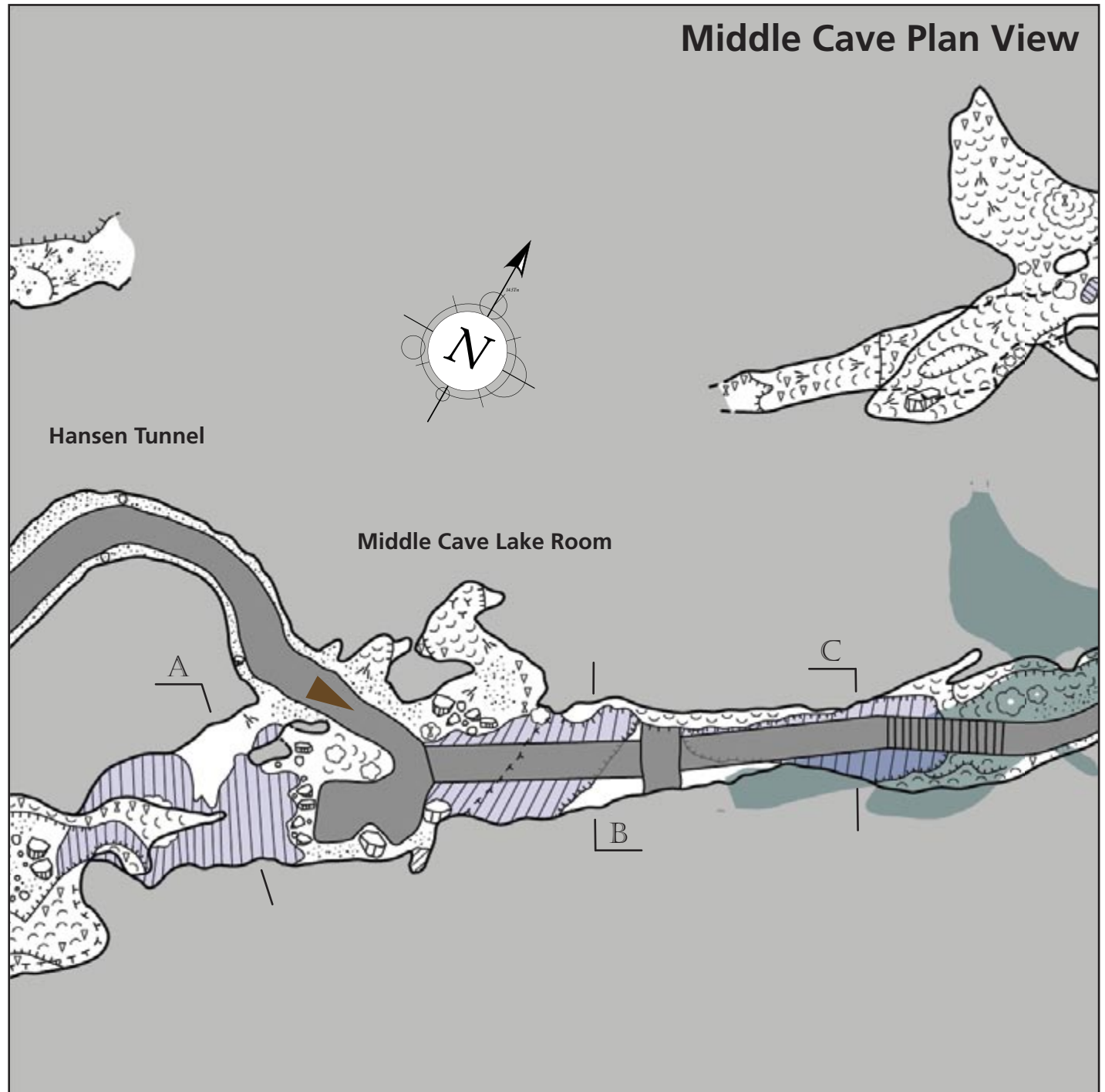
# Middle Cave Plan View



Cross sections are not drawn to scale  
Each section is looking away from it's entrance



Middle Cave Lake during Spring run off when the pump stopped working during April of 2004. Photo by Jon Jasper.



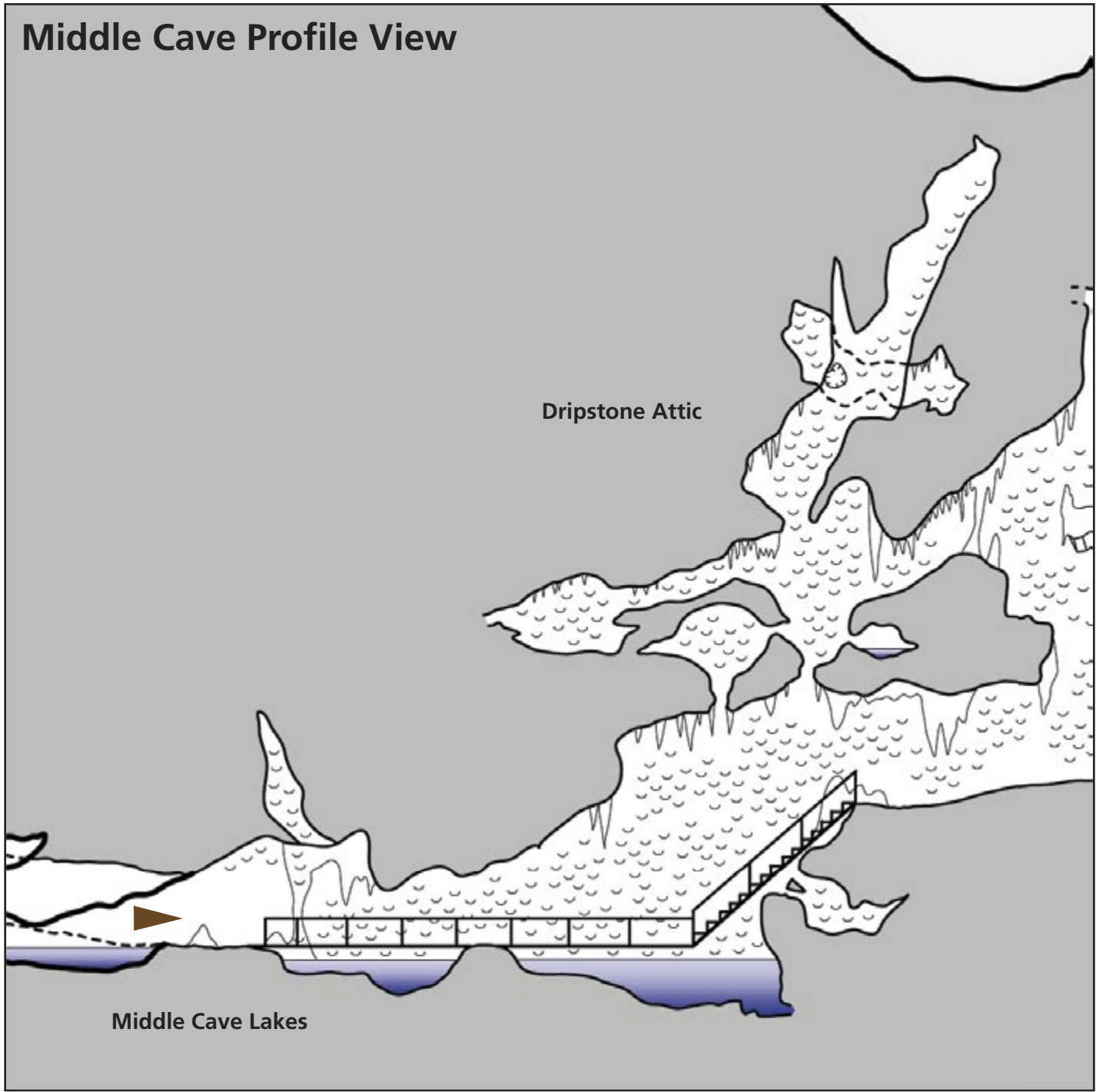
11 < Continued on Page > 15

# Legend

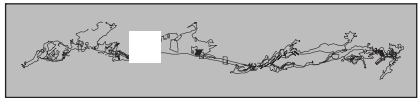
Flowstone	—
Ledge	—
Stalactite	▽
Stalagmite	⬢
Helictite	⚡
Pool	—
Main Trail	—
Intro to Caving Trail	—
Rocks	•••
Boulders	—
Slope	—
Pit	—
Column	—
Ceiling Ledge	—
Ceiling Dome	—
Silt	—



Middle Cave Lake Room. NPS Photo.

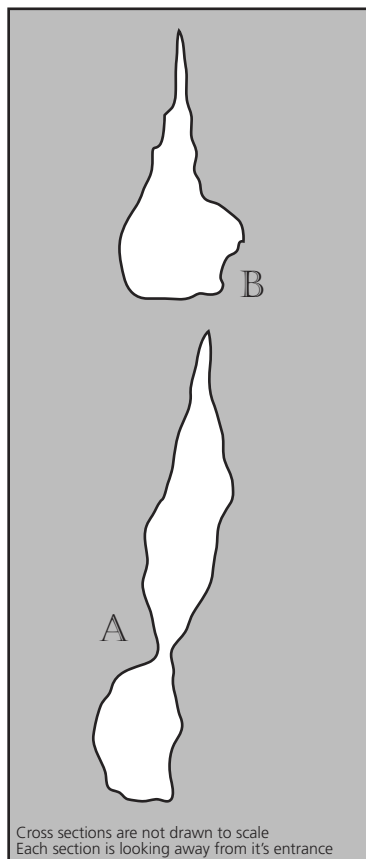


**Brown Arrows** indicate where the photograph was taken and the direction the camera was pointing when the images was shot.

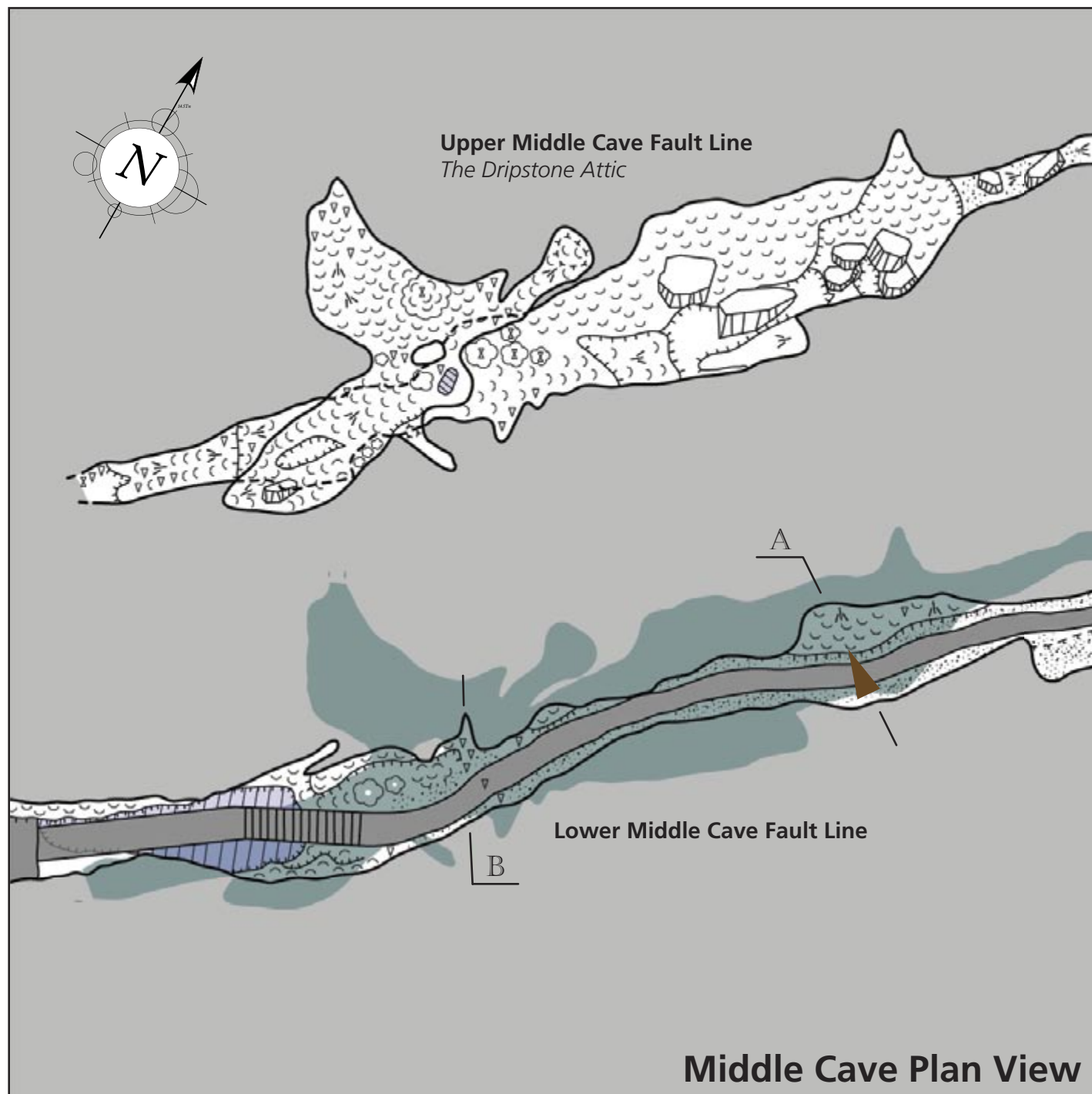


12 < Continued on Page > 16





Ceiling passage leading to the Dripstone Attic in the Middle Cave Fault Line. Passage as seen along the main trail. NPS Photo.

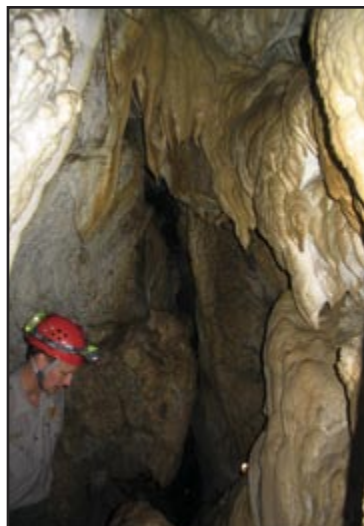


13 < Continued on Page > 17

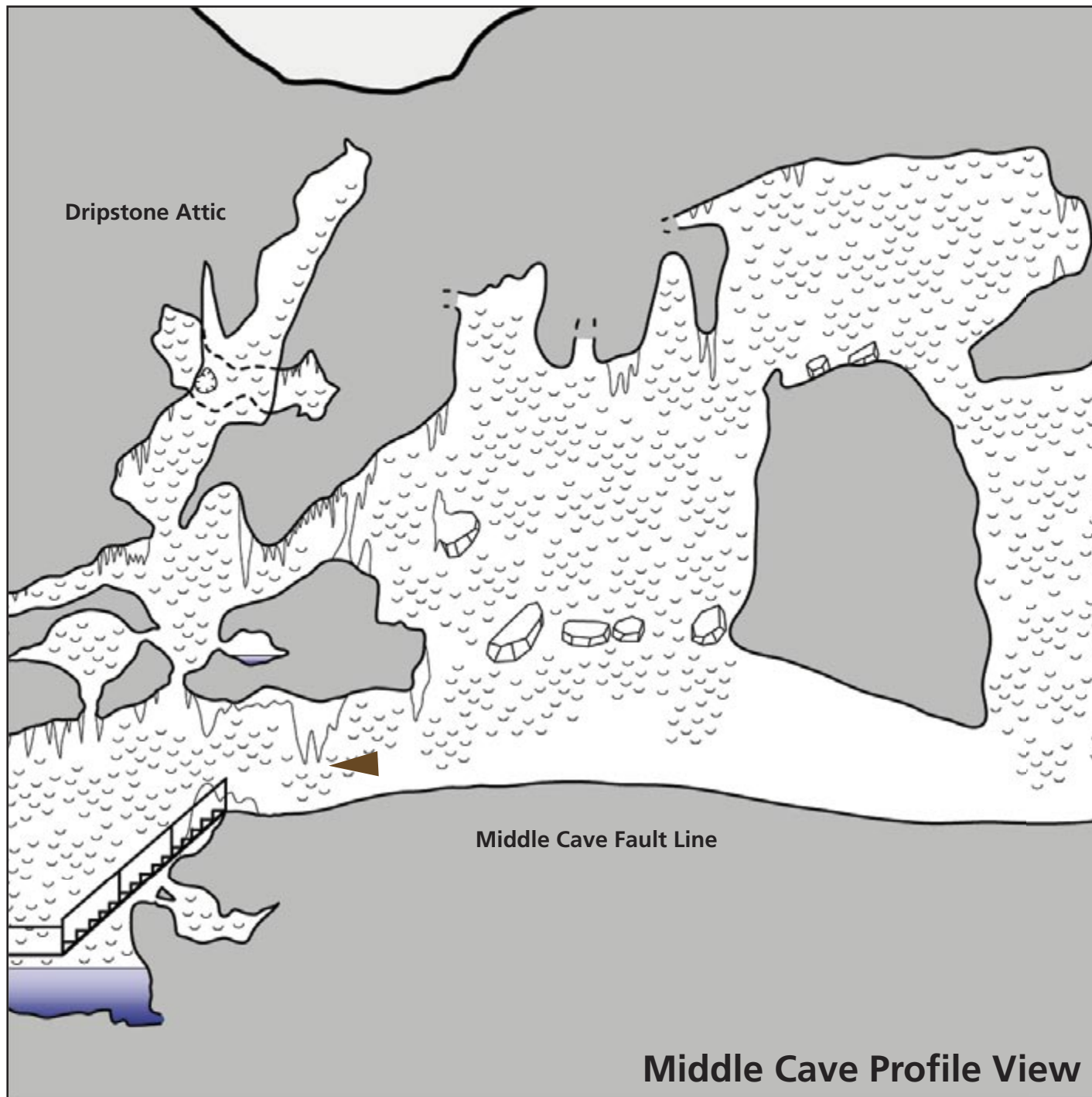


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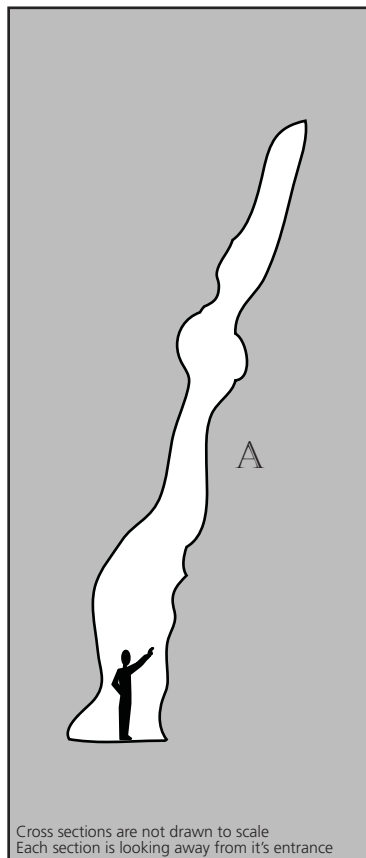
Flowstone	~
Ledge	~
Stalactite	▽
Stalagmite	⬢
Helictite	⋈
Pool	~
Main Trail	—
Intro to Caving Trail	- - -
Rocks	•••
Boulders	⬢
Slope	^
Pit	⊙
Column	⋈
Ceiling Ledge	~
Ceiling Dome	⬢
Silt	•••



Jon Jasper stands in the Middle Cave Fault Line passage just below the Dripstone Attic. NPS Photo.



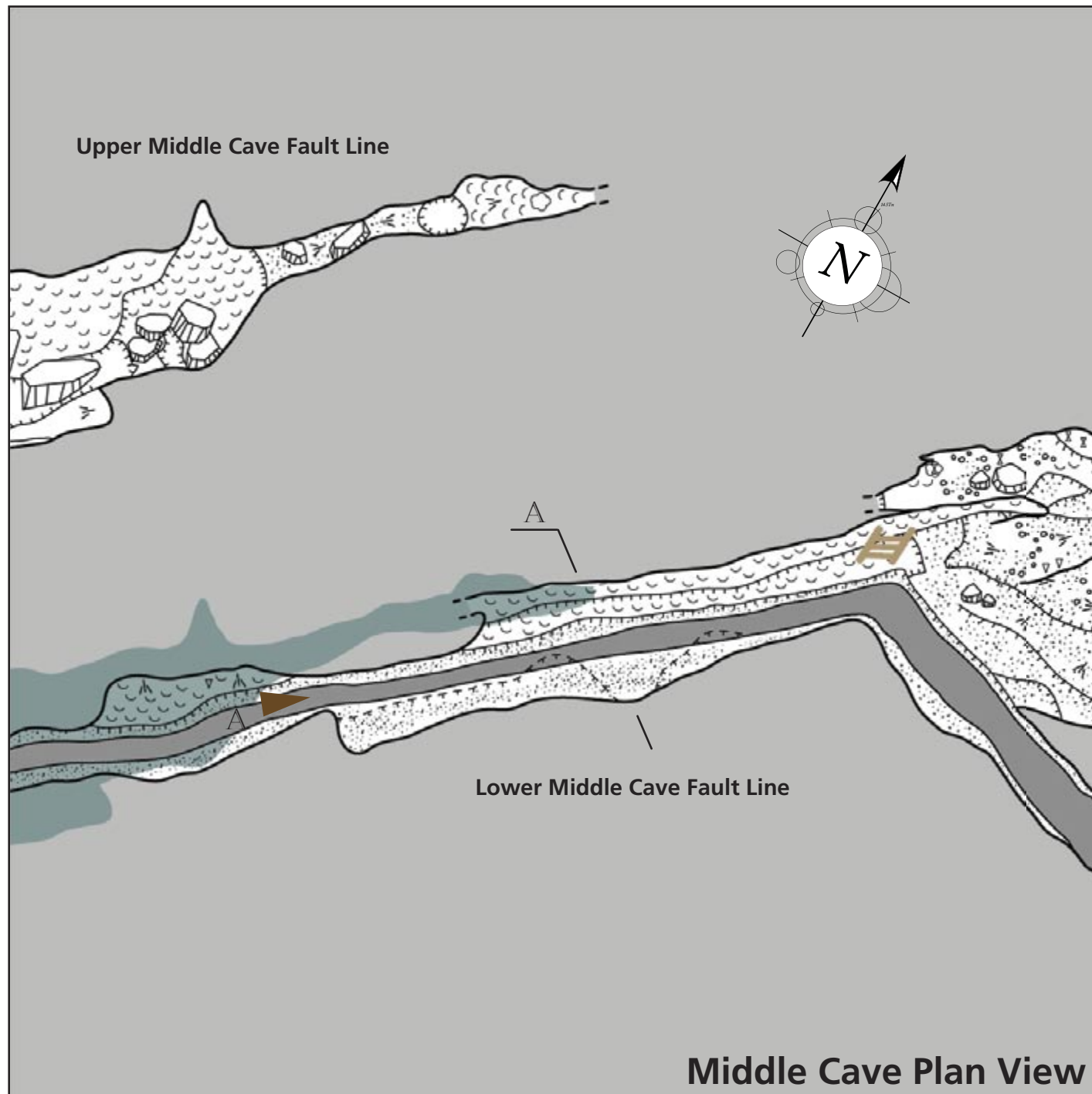
14 < Continued on Page > 18



Cross sections are not drawn to scale  
Each section is looking away from it's entrance



The Middle Cave fault line. NPS Photo.



## Middle Cave Plan View

15 < Continued on Page > 19



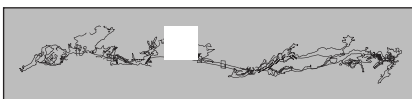
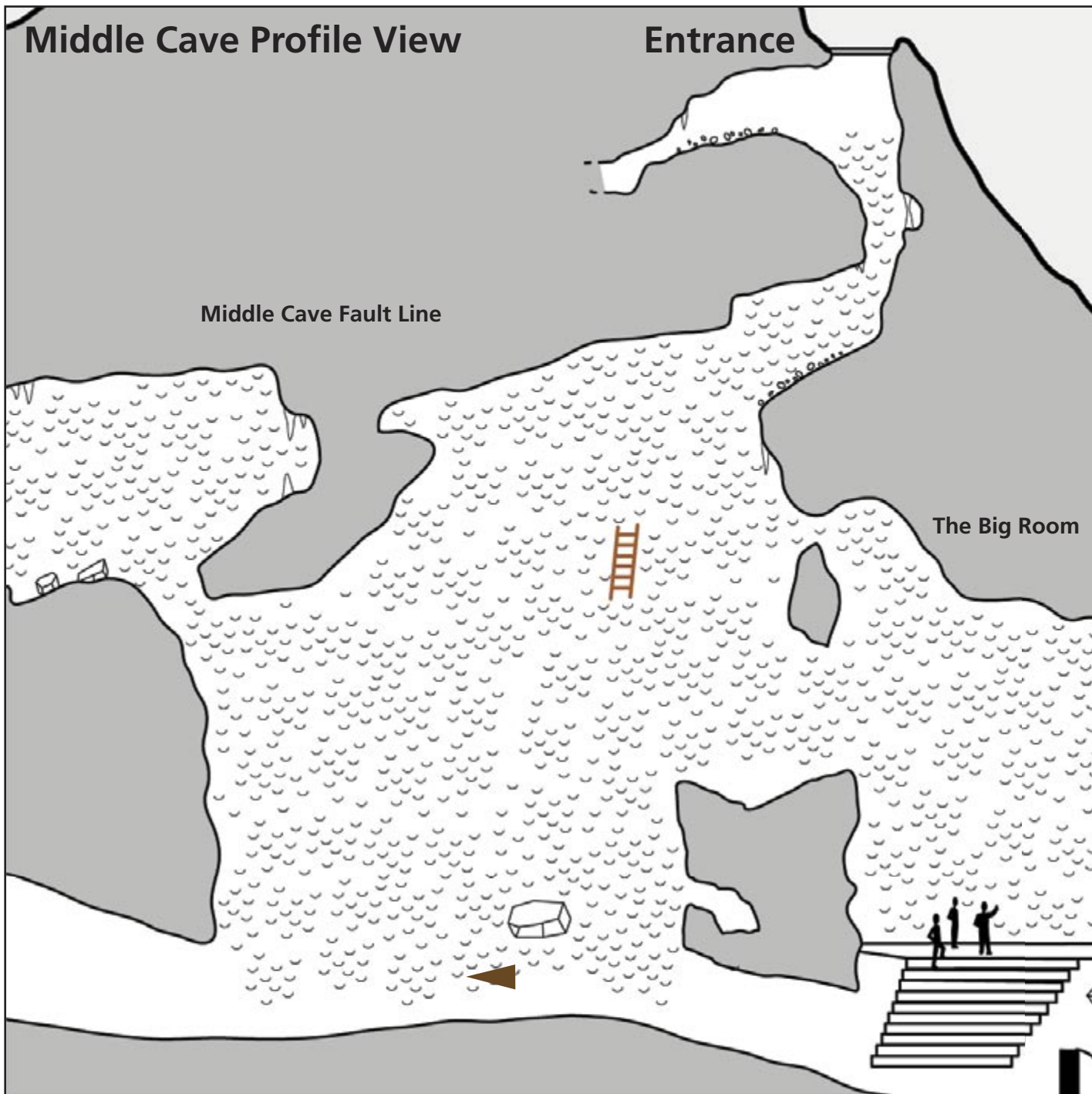
# Legend

Flowstone	~
Ledge	~
Stalactite	∇
Stalagmite	⊕
Helictite	§
Pool	~
Main Trail	—
Intro to Caving Trail	- - -
Rocks	•••
Boulders	⬢
Slope	^
Pit	⊙
Column	⌵
Ceiling Ledge	~
Ceiling Dome	⊙
Silt	•••



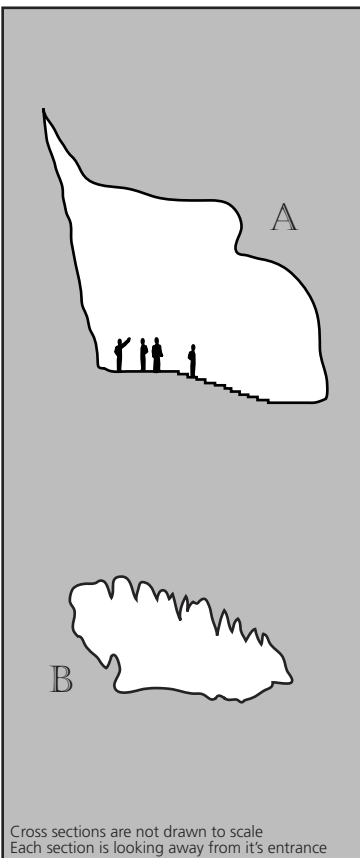
Popcorn covered wall in the Middle Cave Fault Line passage. NPS Photo.

**Brown Arrows** indicate where the photograph was taken and the direction the camera was pointing when the images was shot.

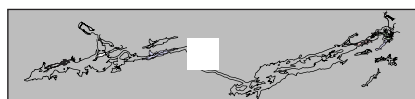
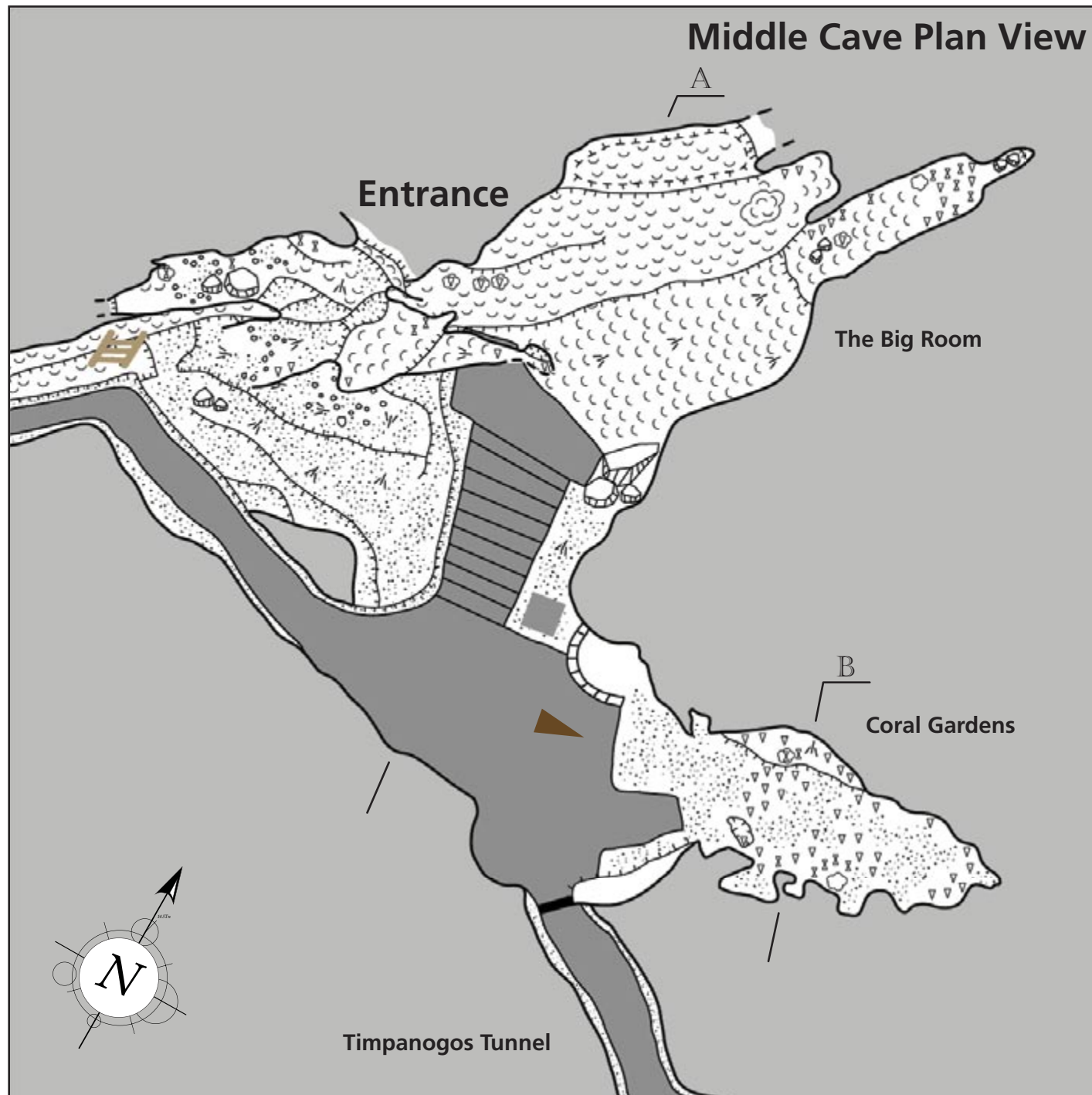


16 < Continued on Page > 20





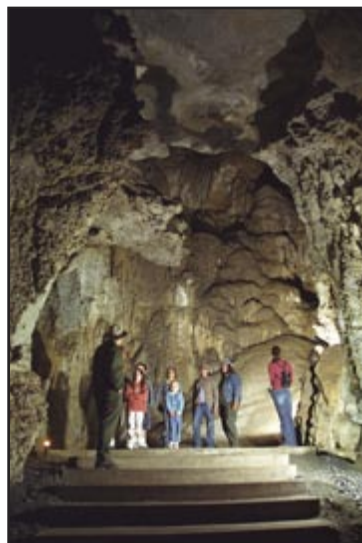
The Coral Gardens in Middle Cave.  
NPS Photo.



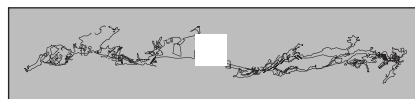
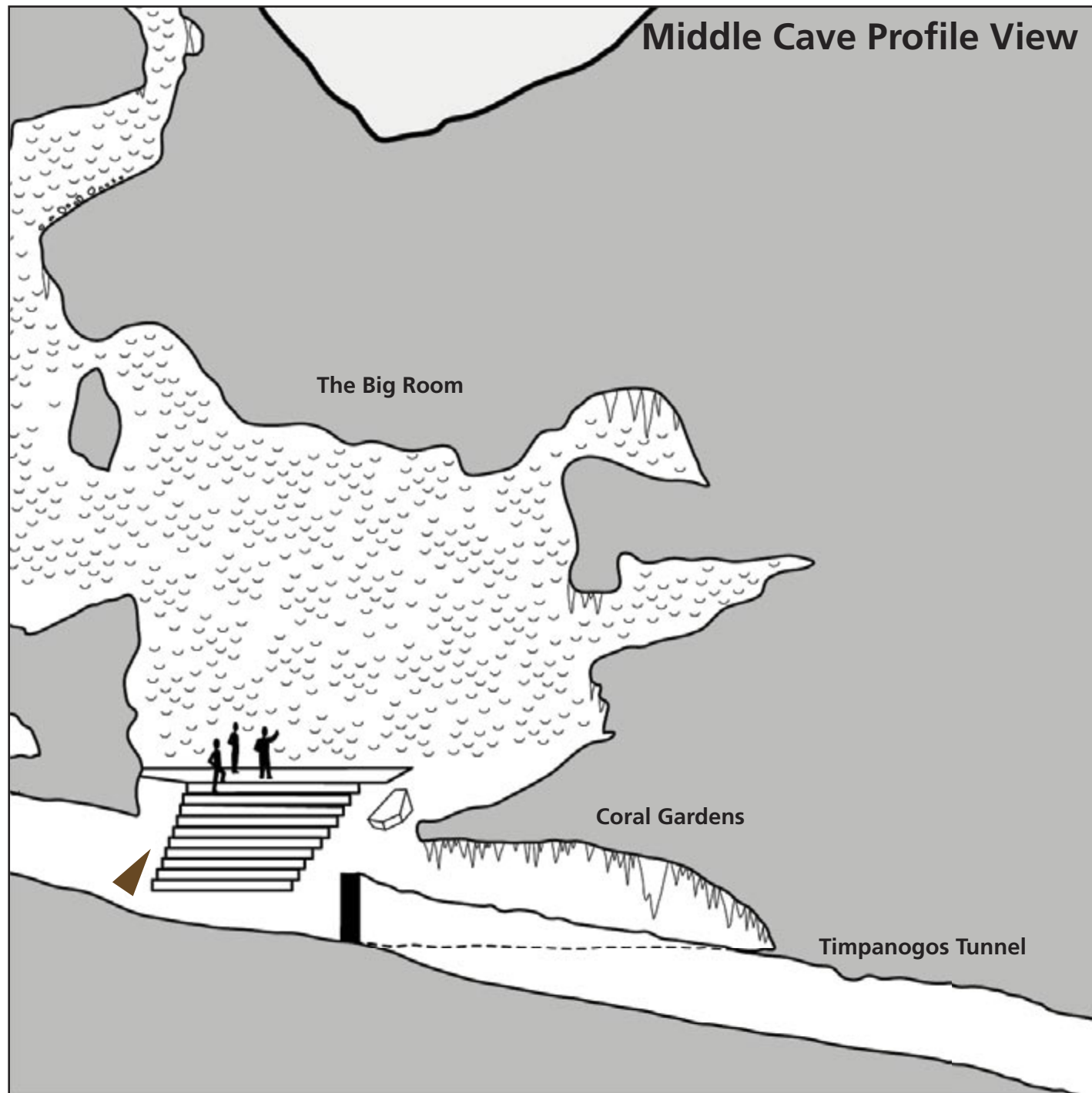
17 < Continued on Page > 21

# Legend

Flowstone	~
Ledge	┐
Stalactite	∇
Stalagmite	⊕
Helictite	§
Pool	▨
Main Trail	—
Intro to Caving Trail	- - -
Rocks	•••
Boulders	⬢
Slope	↘
Pit	⊙
Column	⌵
Ceiling Ledge	┐
Ceiling Dome	⊙
Silt	•••

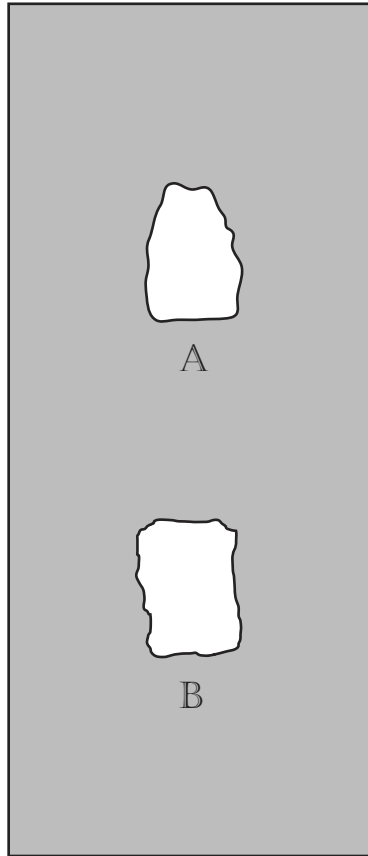
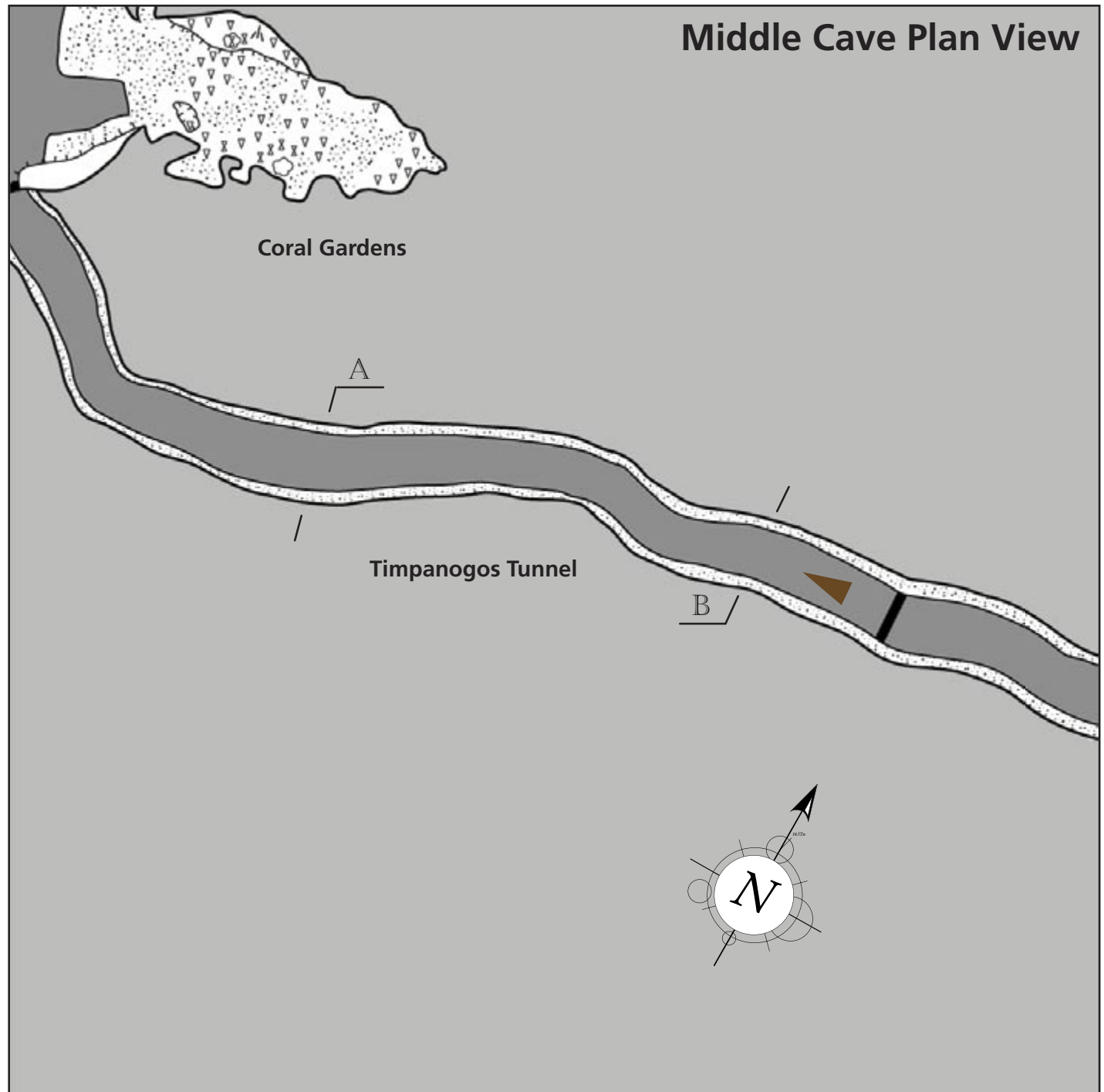


A Ranger Leads a tour in The Big Room of Middle Cave (© 2004, Brandon Kowallis).



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# Middle Cave Plan View

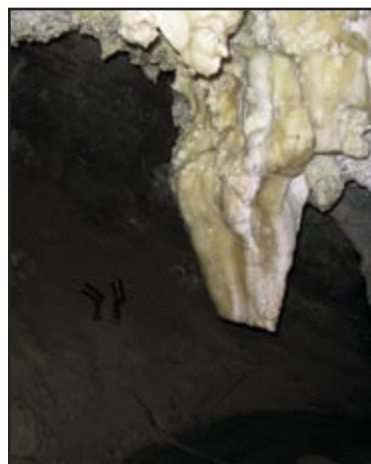
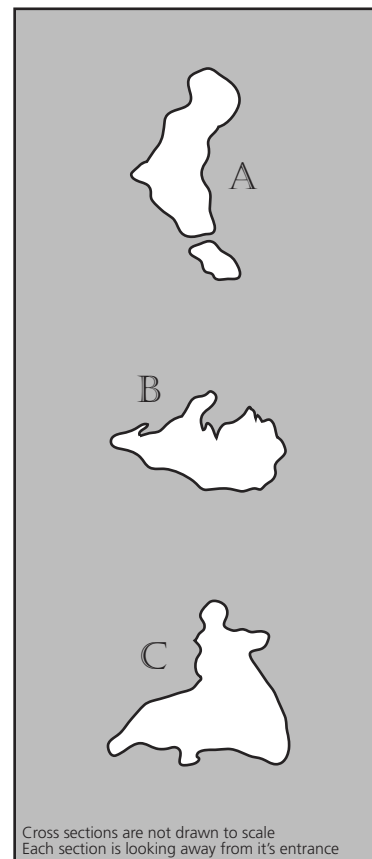


A ranger stands in the Timpanogos Cave Tunnel lit with a flashlight (© 2004, Brandon Kowallis).

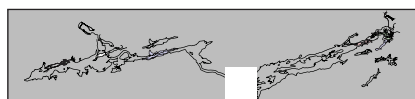
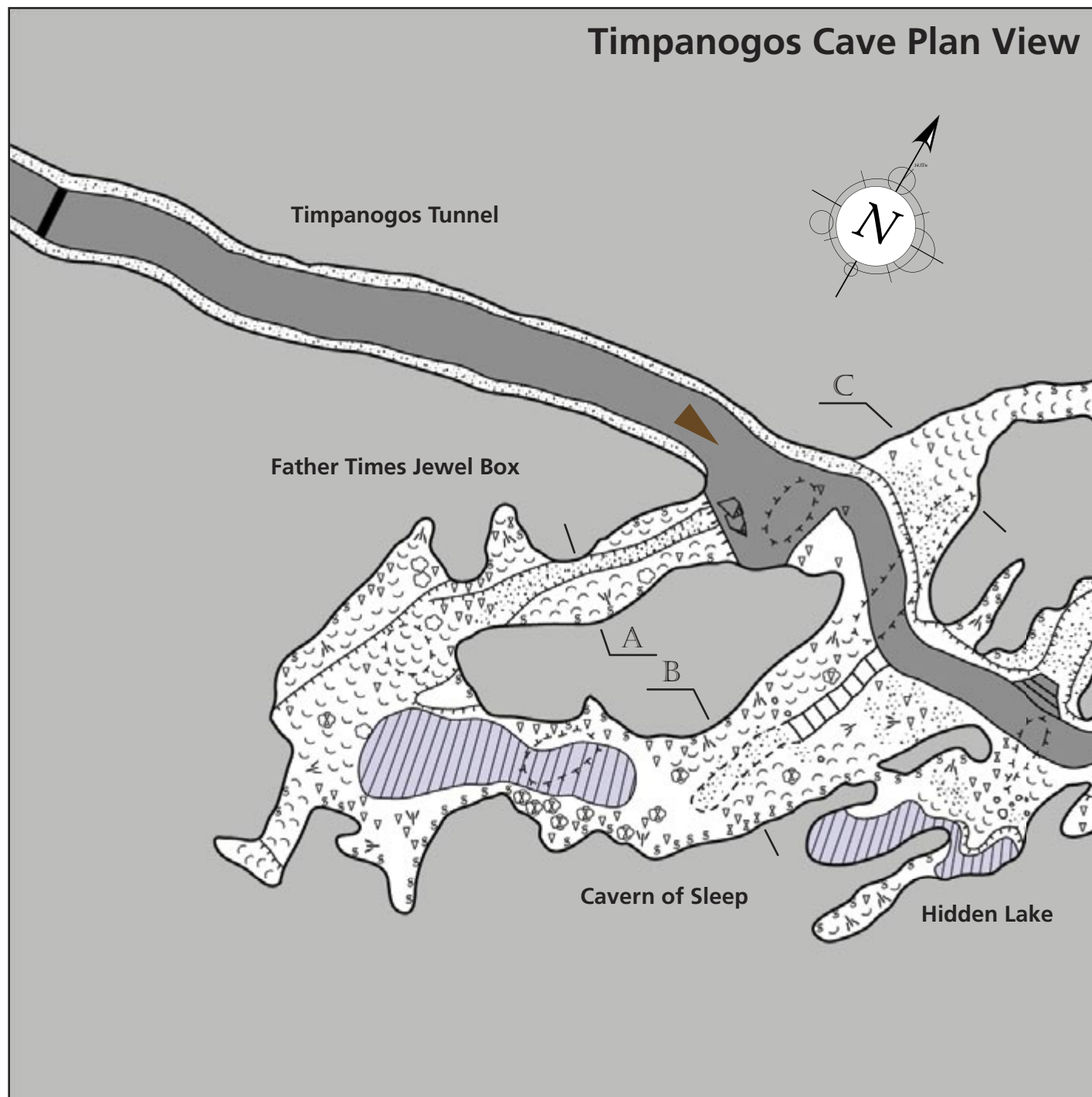


19 < Continued on Page > 22





First glimpse of Timpanogos Cave after exiting the man-made tunnel. This large stalactite is stained yellow from the presence of nickel. NPS Photo.



# Legend

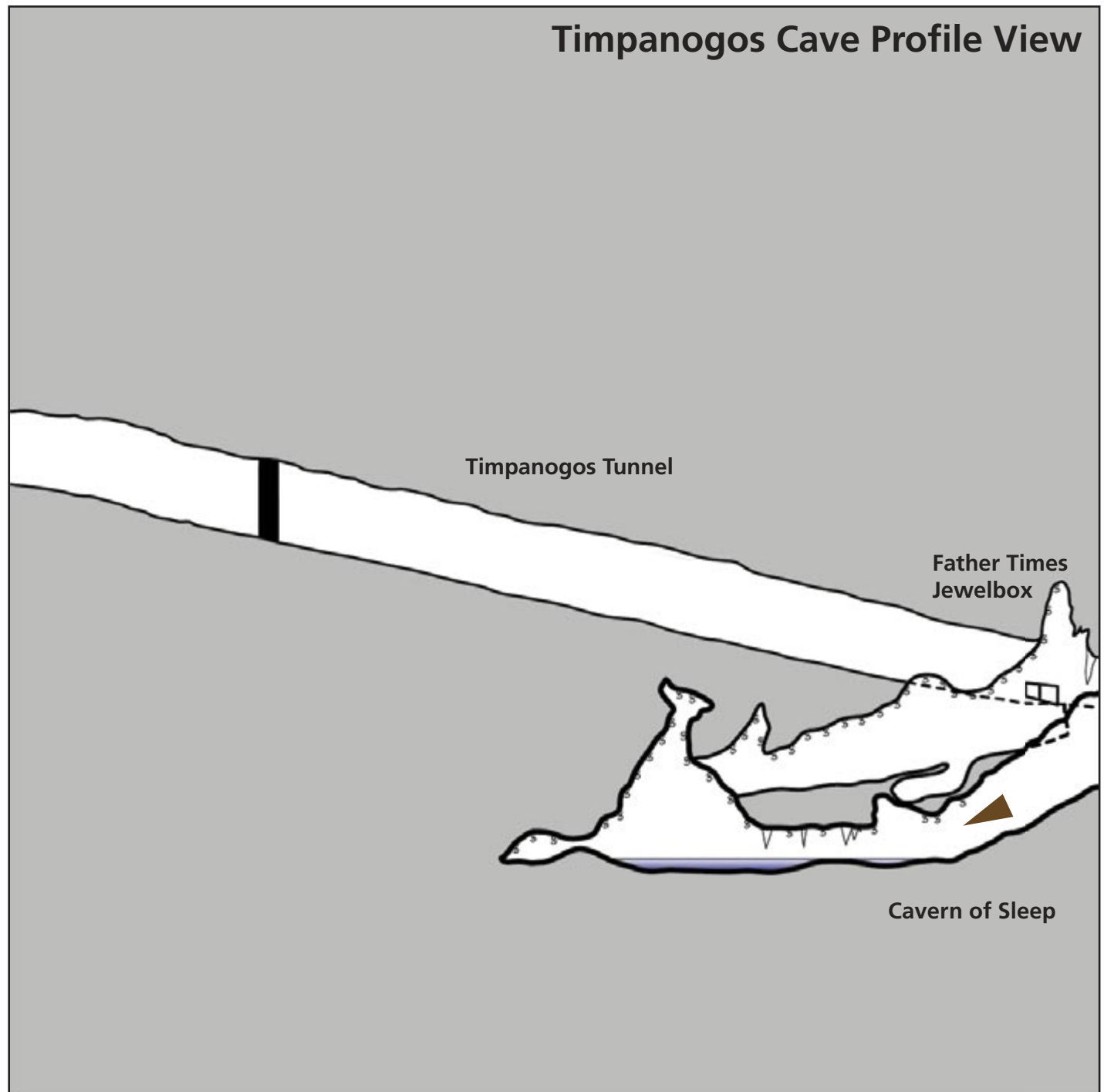
Flowstone	—
Ledge	—
Stalactite	▽
Stalagmite	⬢
Helictite	⚡
Pool	—
Main Trail	—
Intro to Caving Trail	—
Rocks	⬢
Boulders	⬢
Slope	—
Pit	⬢
Column	⬢
Ceiling Ledge	—
Ceiling Dome	⬢
Silt	⬢



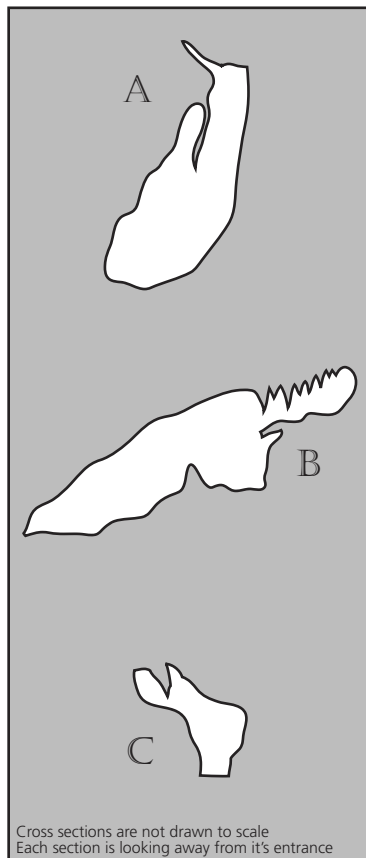
Anthodites in the Cavern of Sleep.  
NPS Photo.

**Brown Arrows** indicate where the photograph was taken and the direction the camera was pointing when the images was shot.

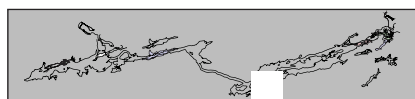
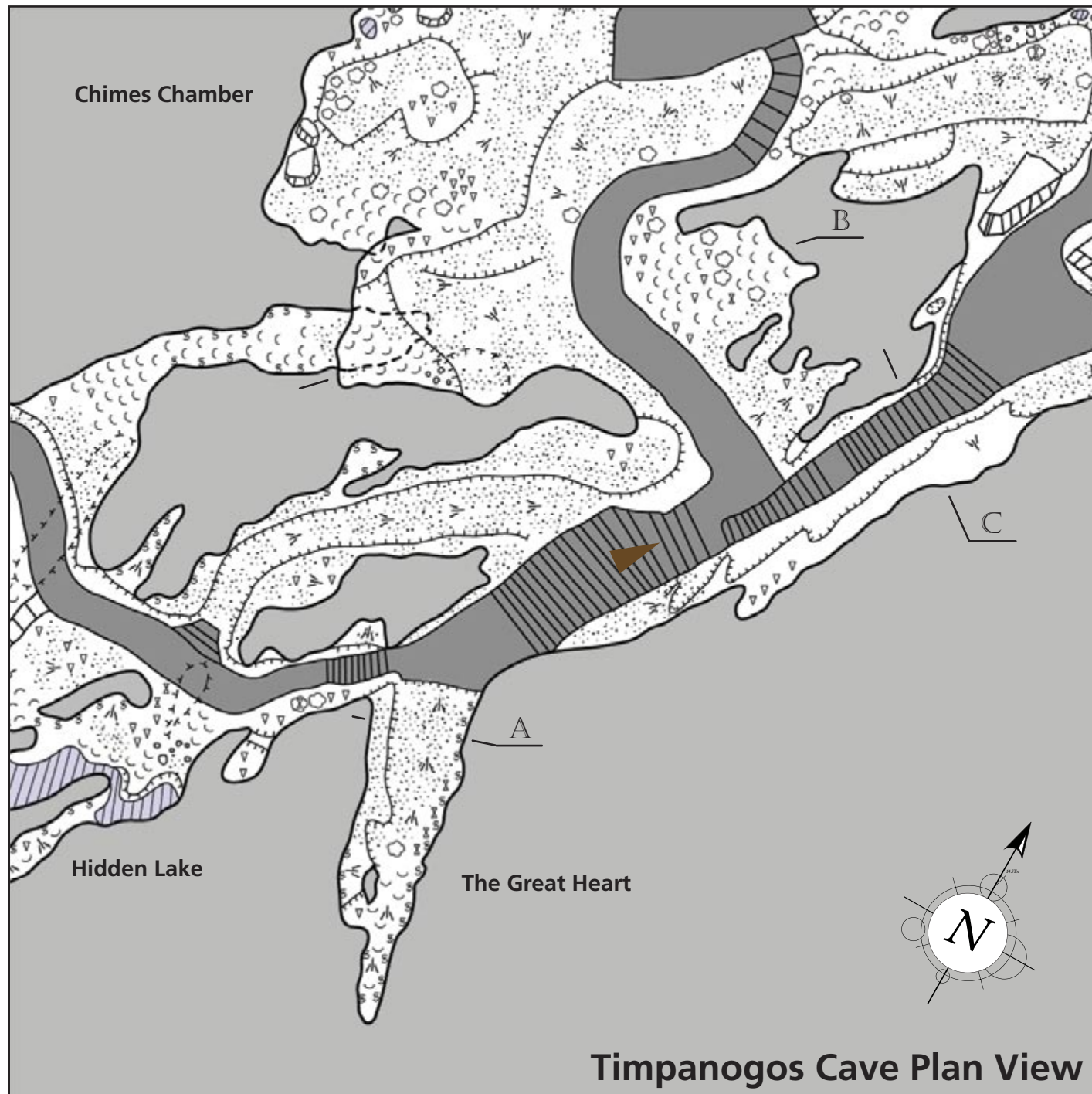
## Timpanogos Cave Profile View



20 < Continued on Page > 25



Cave trail at the junction to the Chimes Chamber. NPS Photo.



22 < Continued on Page > 26

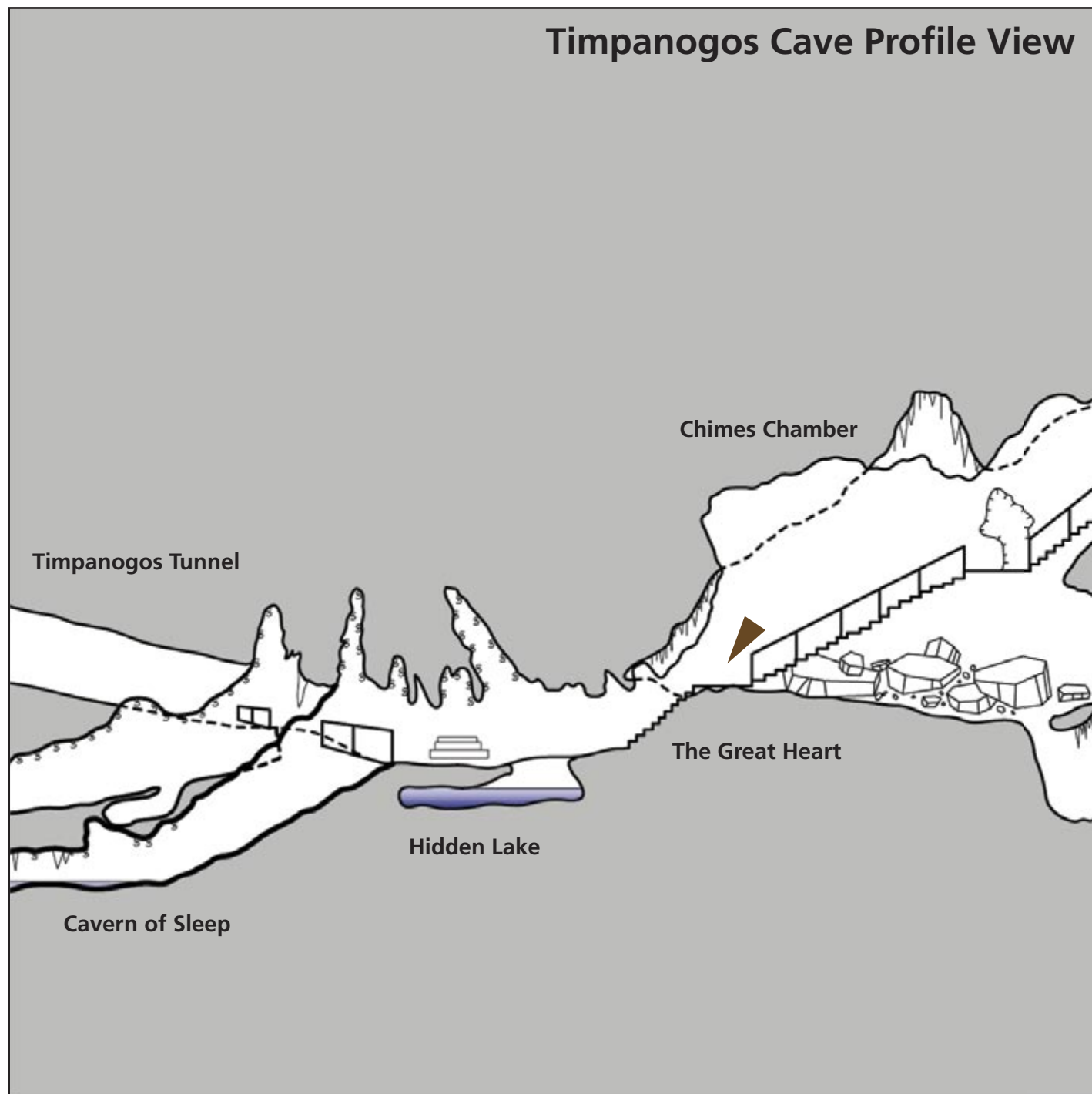


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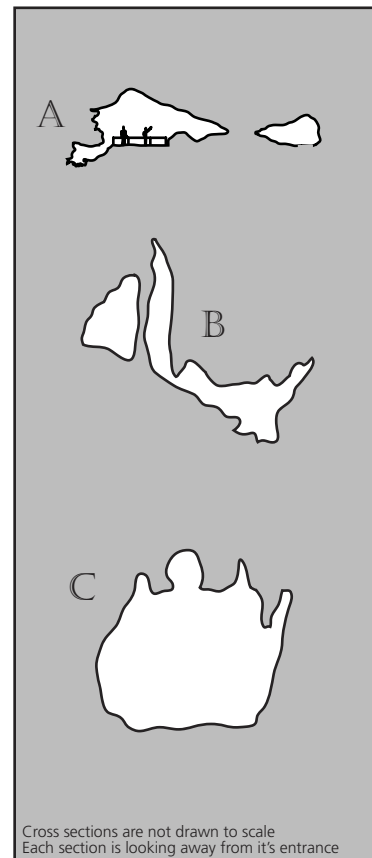
Flowstone	—
Ledge	—
Stalactite	▽
Stalagmite	⬢
Helictite	Ⓕ
Pool	—
Main Trail	—
Intro to Caving Trail	—
Rocks	⬢
Boulders	⬢
Slope	—
Pit	⬢
Column	⬢
Ceiling Ledge	—
Ceiling Dome	⬢
Silt	⬢



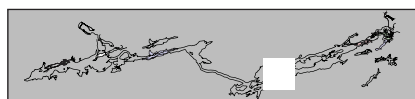
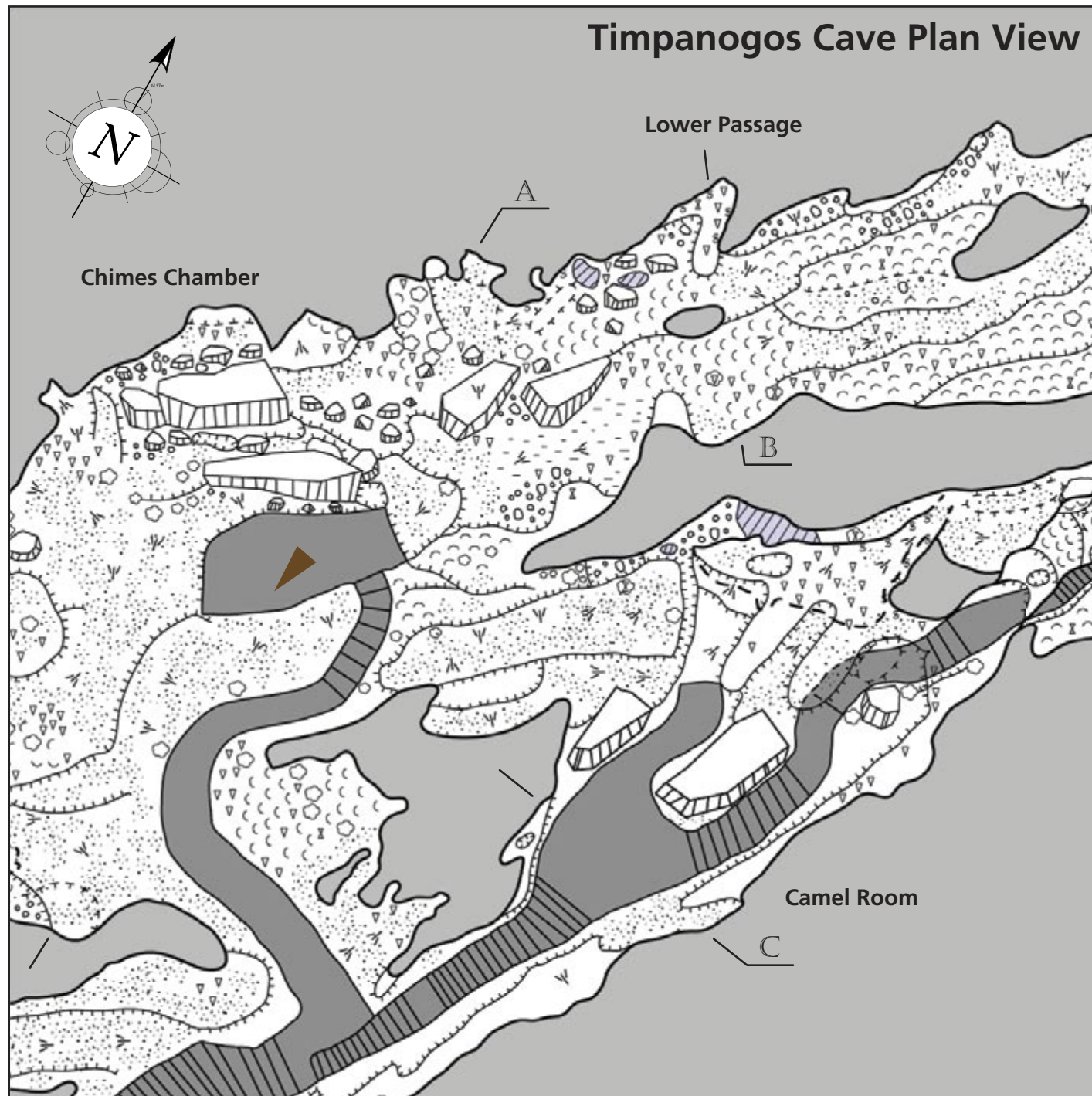
The Great Heart of Timpanogos.  
Photo by Jon Jasper 2004.



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Formation covered ceiling in the Chimes Chamber. NPS Photo.



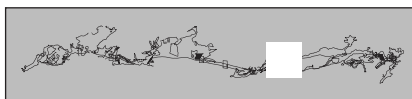
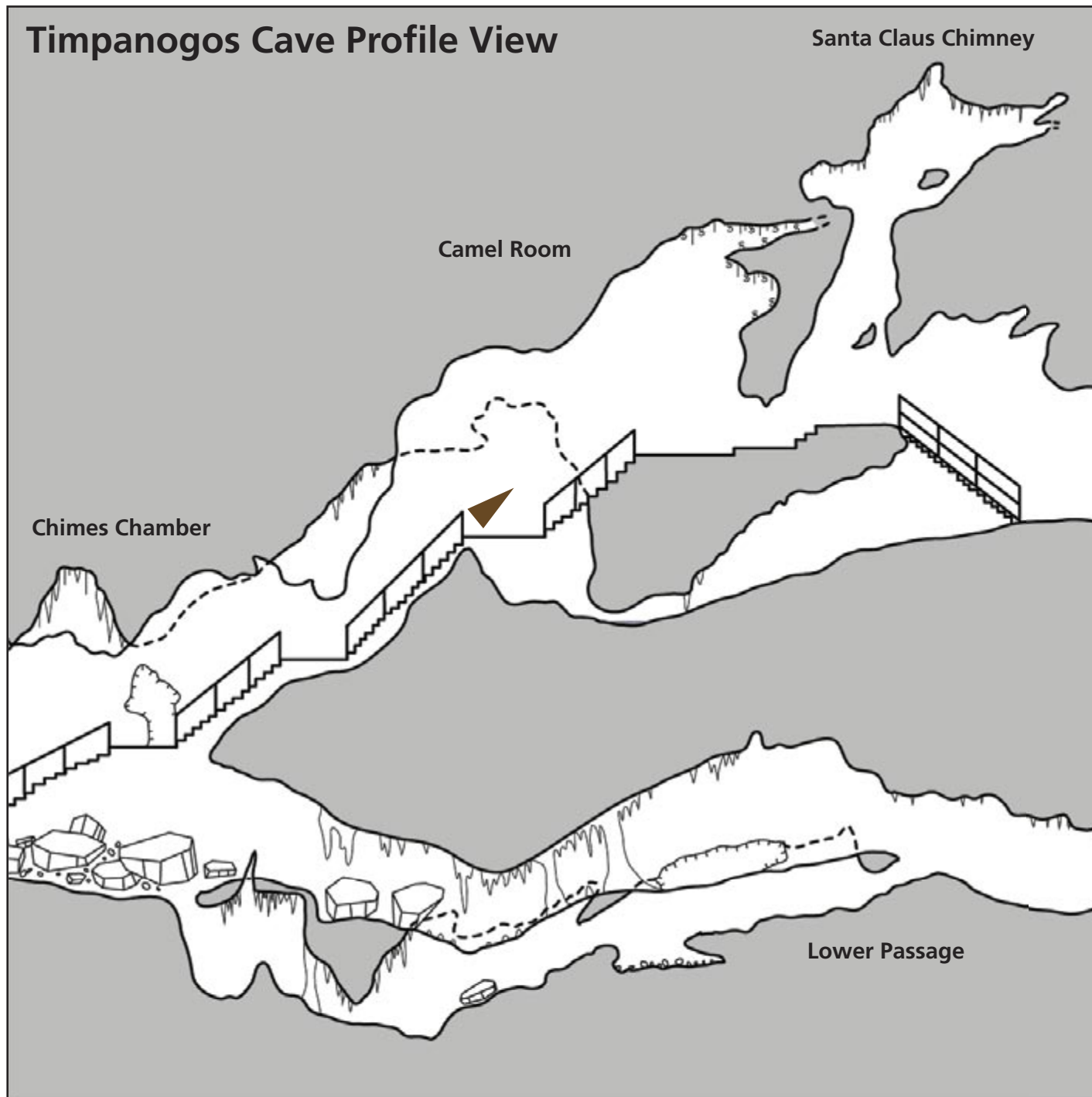
# Legend

Flowstone	—
Ledge	—
Stalactite	▽
Stalagmite	⬢
Helictite	⋈
Pool	—
Main Trail	—
Intro to Caving Trail	—
Rocks	⬢
Boulders	⬢
Slope	—
Pit	⬢
Column	⋈
Ceiling Ledge	—
Ceiling Dome	⬢
Silt	⬢



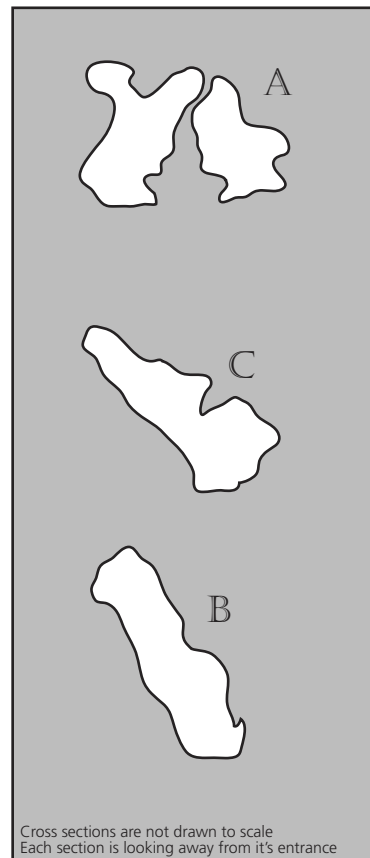
Looking into the Camel Room. NPS Photo.

## Timpanogos Cave Profile View

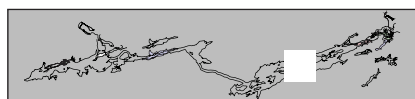
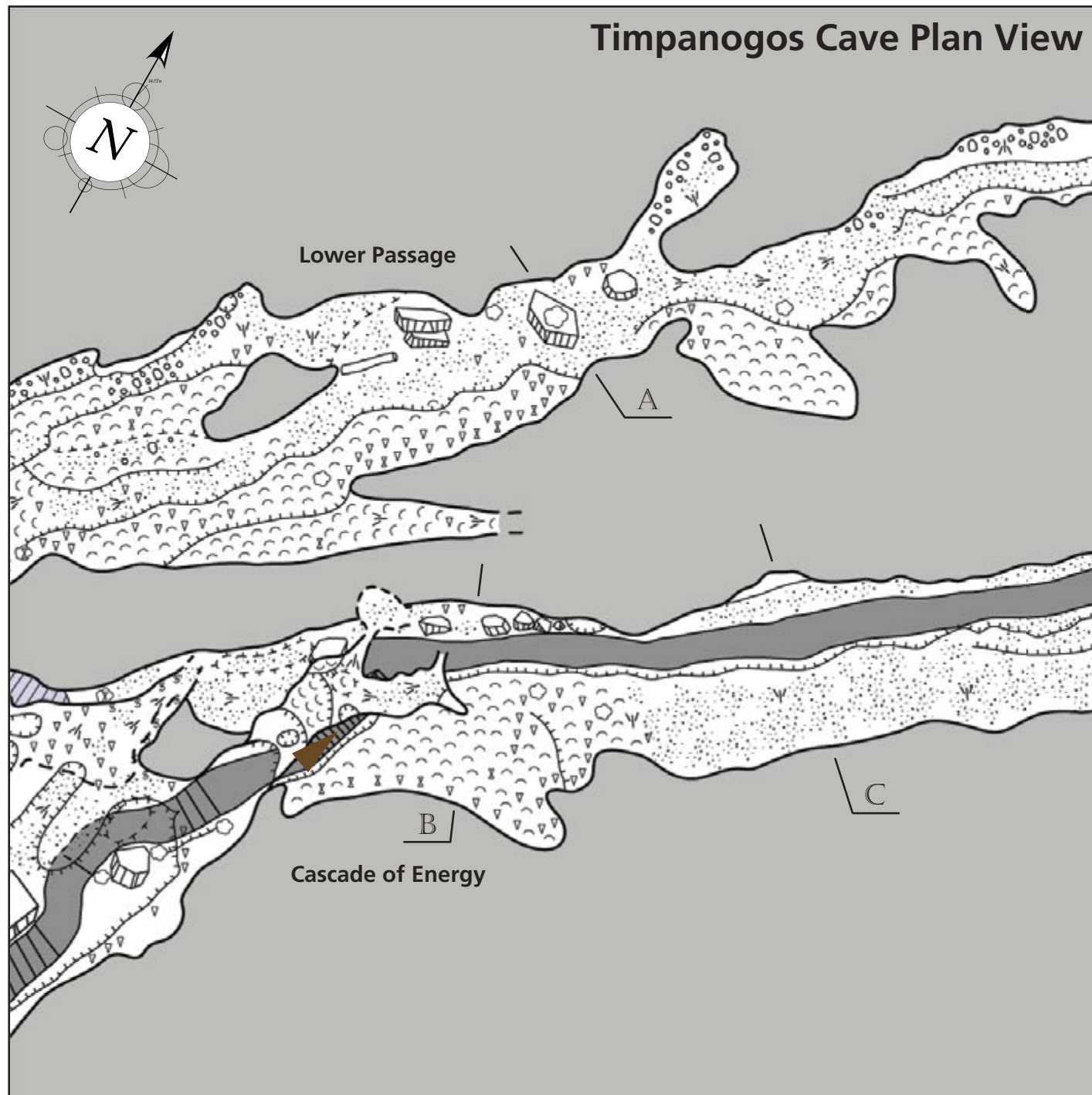


25 < Continued on Page > 29





A tour group passes by the Cascade of Energy flowstone formation.  
NPS Photo.



26 < Continued on Page > 30

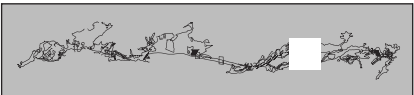
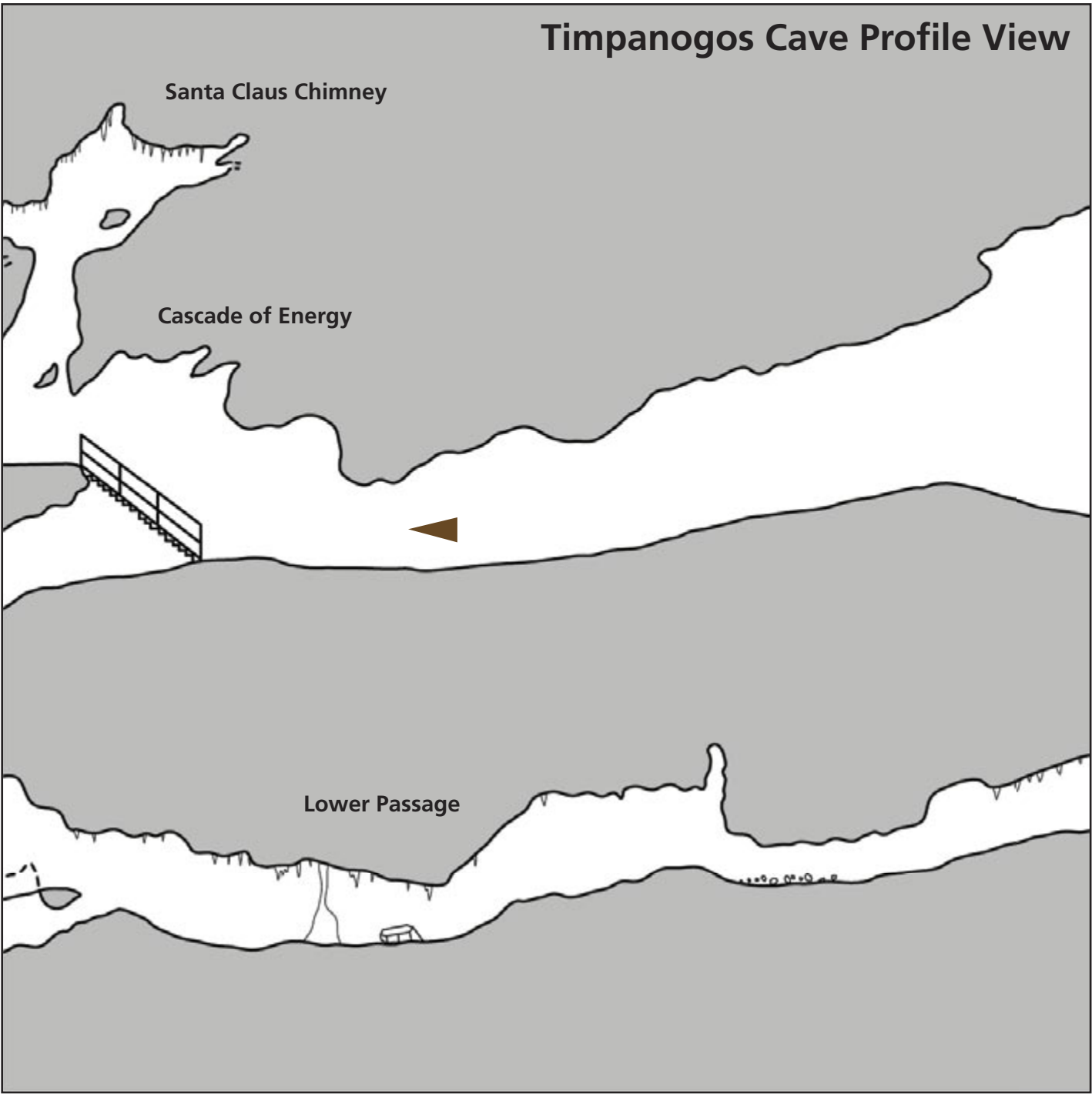
# Legend

Flowstone	—
Ledge	—
Stalactite	▽
Stalagmite	⬢
Helictite	⚡
Pool	—
Main Trail	—
Intro to Caving Trail	—
Rocks	⬢
Boulders	⬢
Slope	⬢
Pit	⬢
Column	⬢
Ceiling Ledge	—
Ceiling Dome	⬢
Silt	⬢

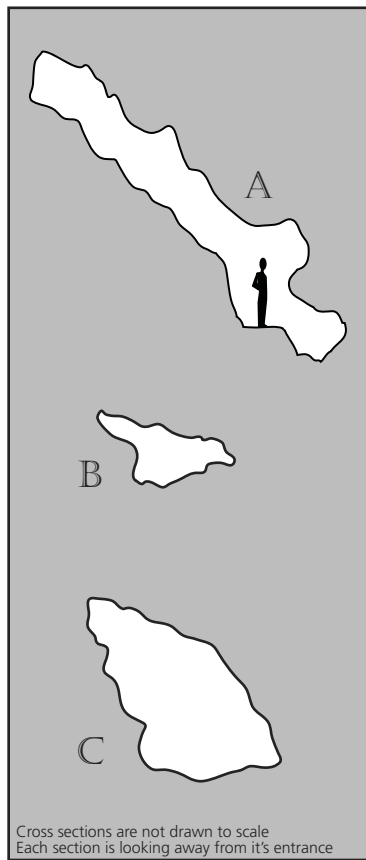


Drapery below the Cascade of Energy. NPS Photo.

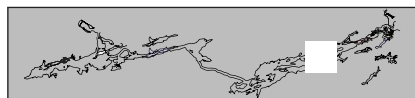
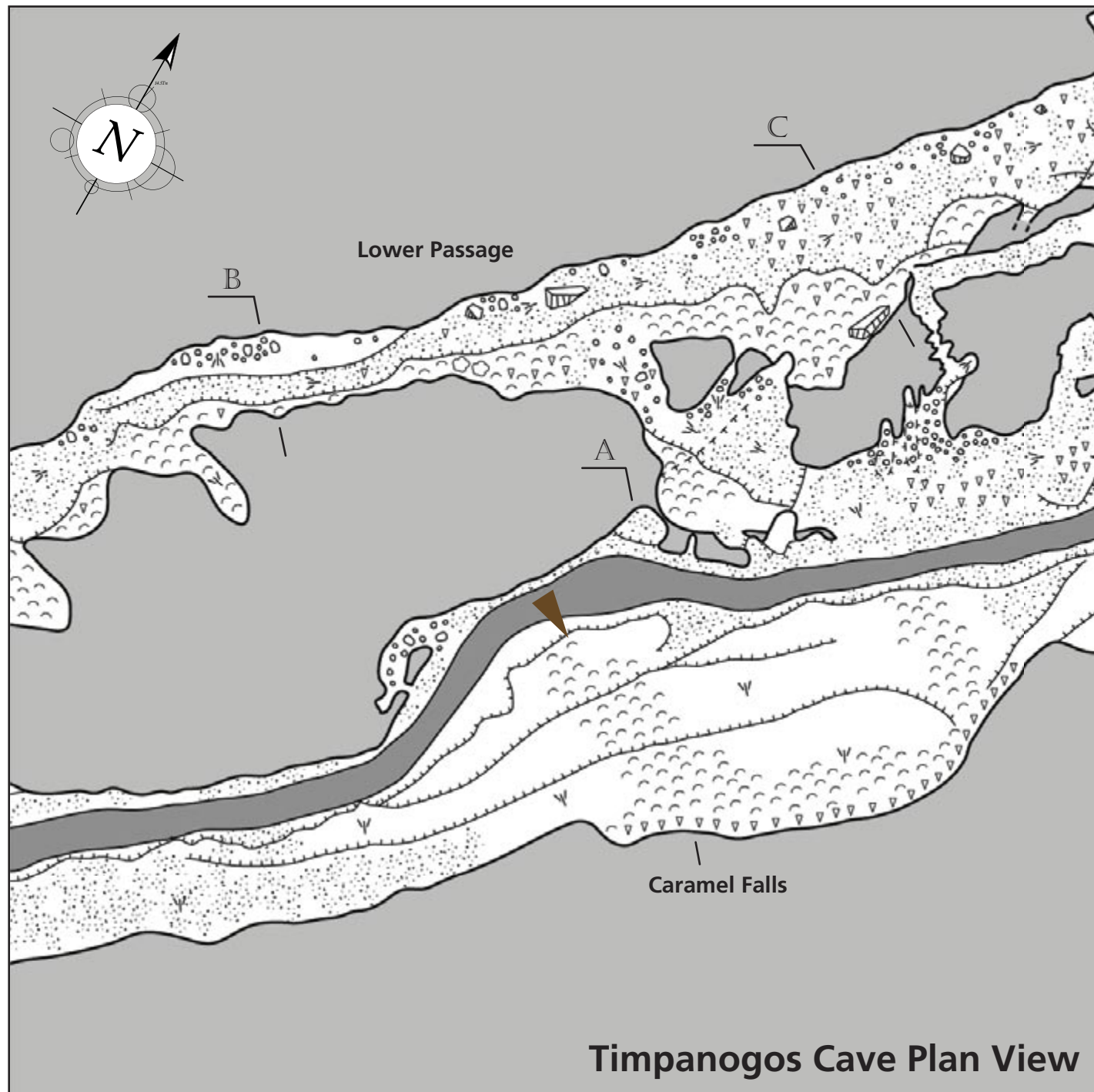
**Brown Arrows** indicate where the photograph was taken and the direction the camera was pointing when the images was shot.



27 < Continued on Page > 31



The Caramel Falls flowstone formation. Orange coloration is caused by the presence of Iron. NPS Photo.



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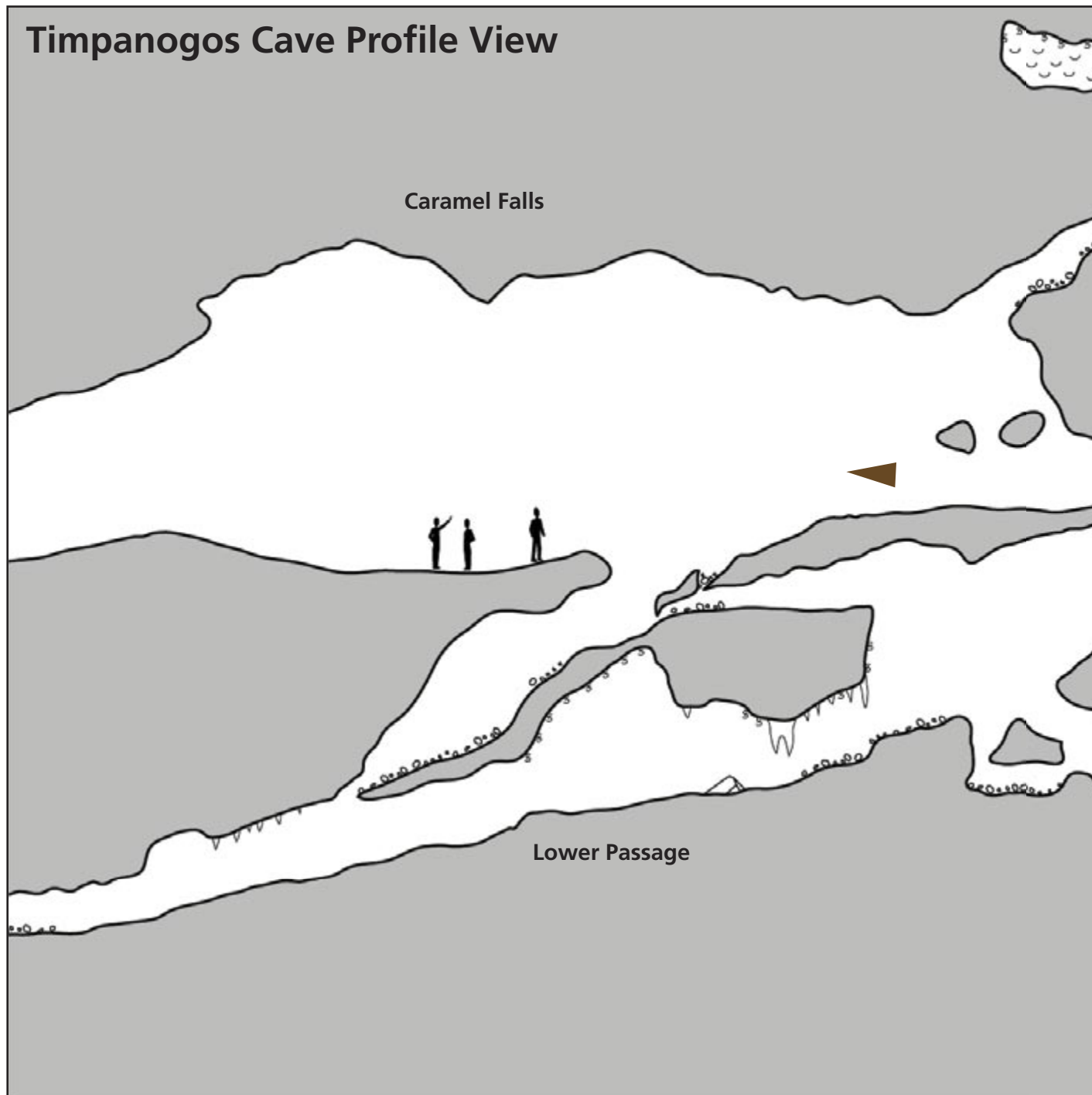
# Legend

Flowstone	—
Ledge	—
Stalactite	▽
Stalagmite	⬢
Helictite	⋈
Pool	—
Main Trail	—
Intro to Caving Trail	—
Rocks	⬢
Boulders	⬢
Slope	—
Pit	⬢
Column	⬢
Ceiling Ledge	—
Ceiling Dome	⬢
Silt	⬢

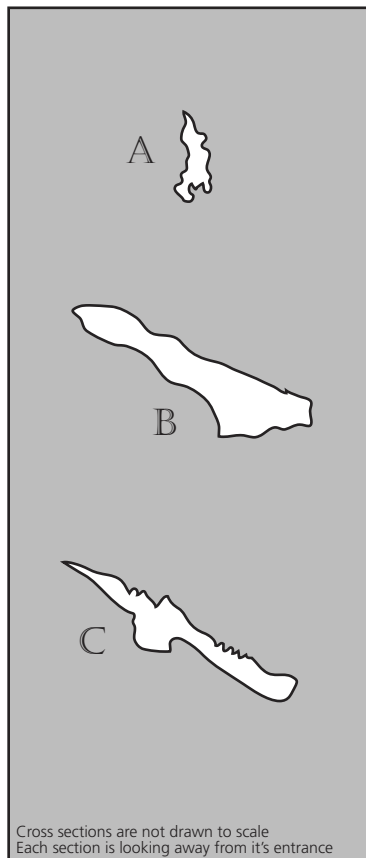


Passageway at the Caramel Falls.  
NPS Photo.

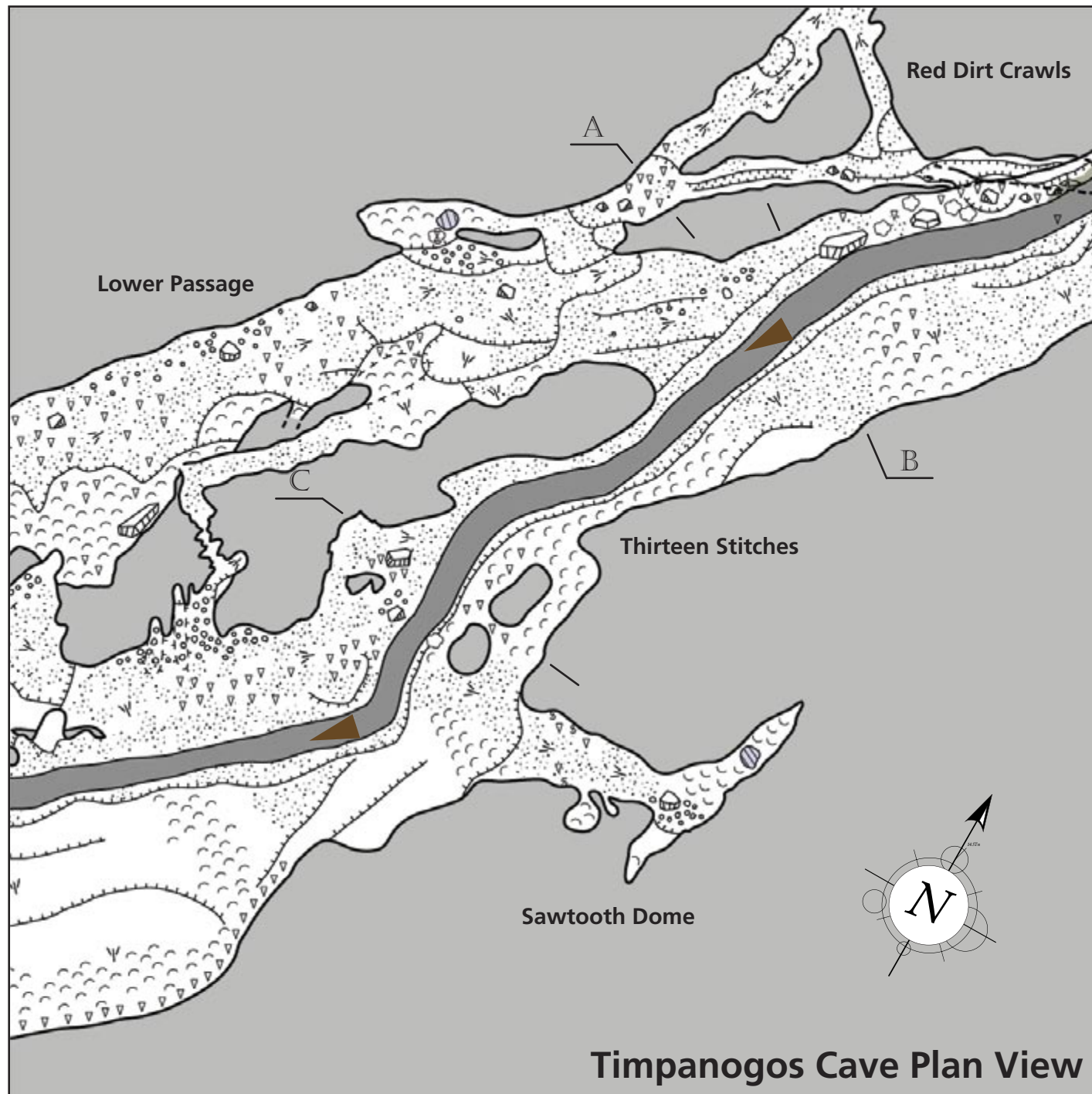
## Timpanogos Cave Profile View



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Two access areas into the lower passage. The top image shows the better route. NPS Photos.



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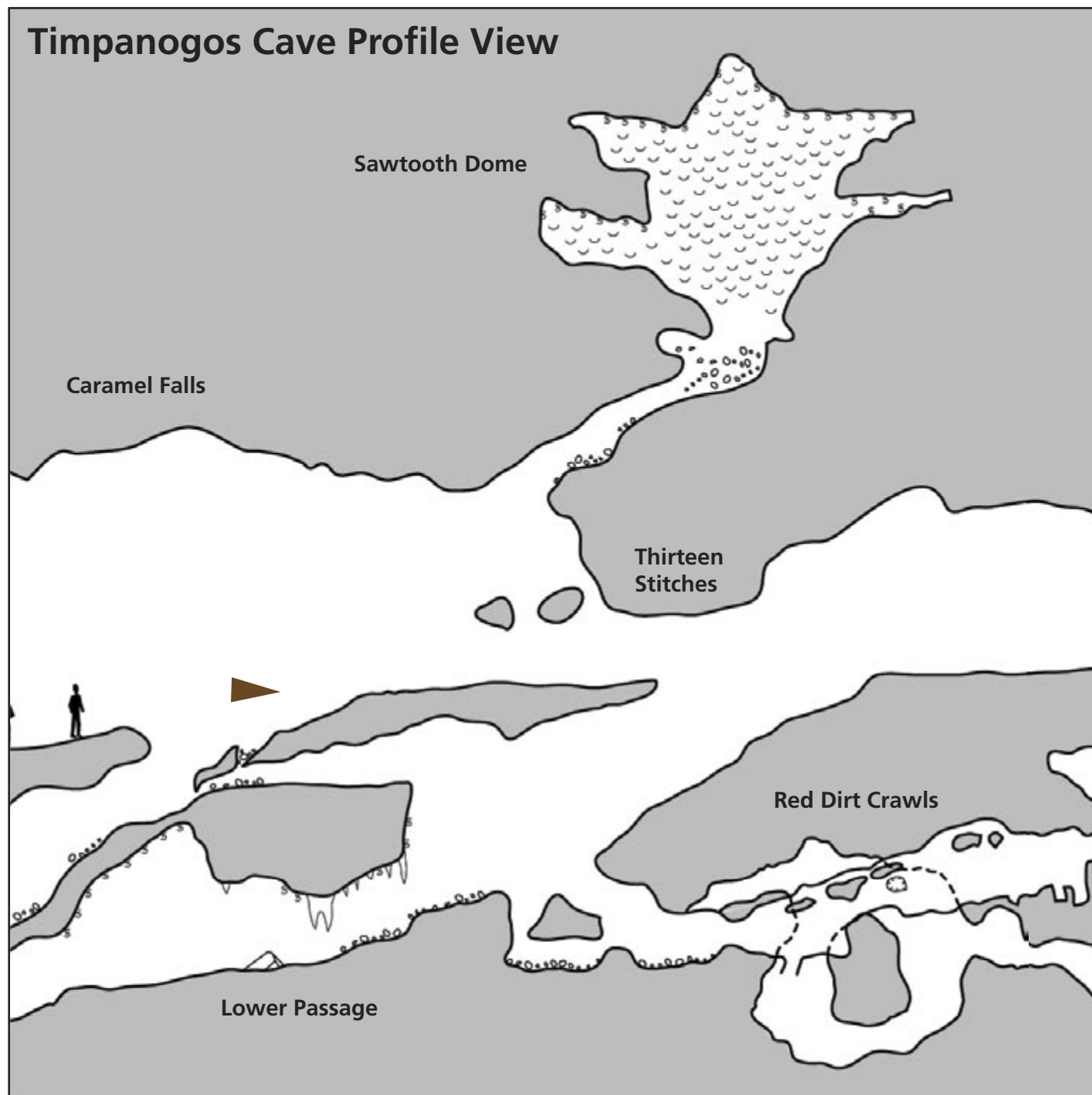
# Legend

Flowstone	~
Ledge	~
Stalactite	▽
Stalagmite	⊕
Helictite	§
Pool	~
Main Trail	—
Intro to Caving Trail	- - -
Rocks	•••
Boulders	⬢
Slope	^
Pit	⊙
Column	⌵
Ceiling Ledge	~
Ceiling Dome	⊙
Silt	•••



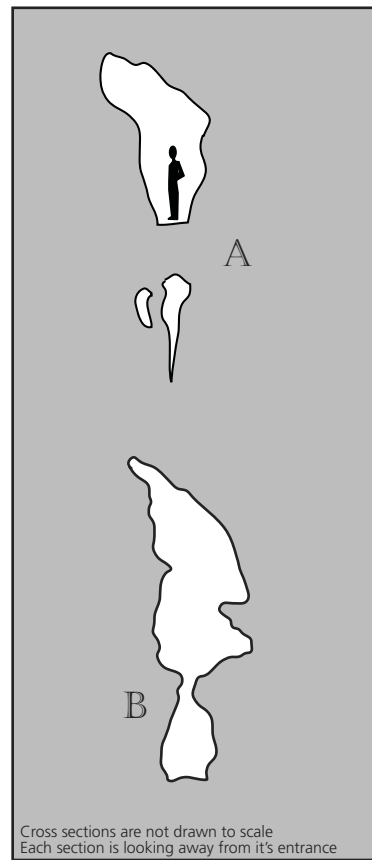
Passage way just before the Thirteen Stitches formation. It is here at the bend in the trail and up to the right where the Sawtooth Dome is accessed. This slope is extremely loose and can cause rocks and debris to fall onto the trail below.

## Timpanogos Cave Profile View

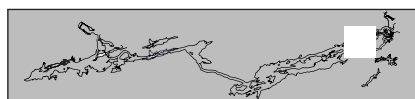
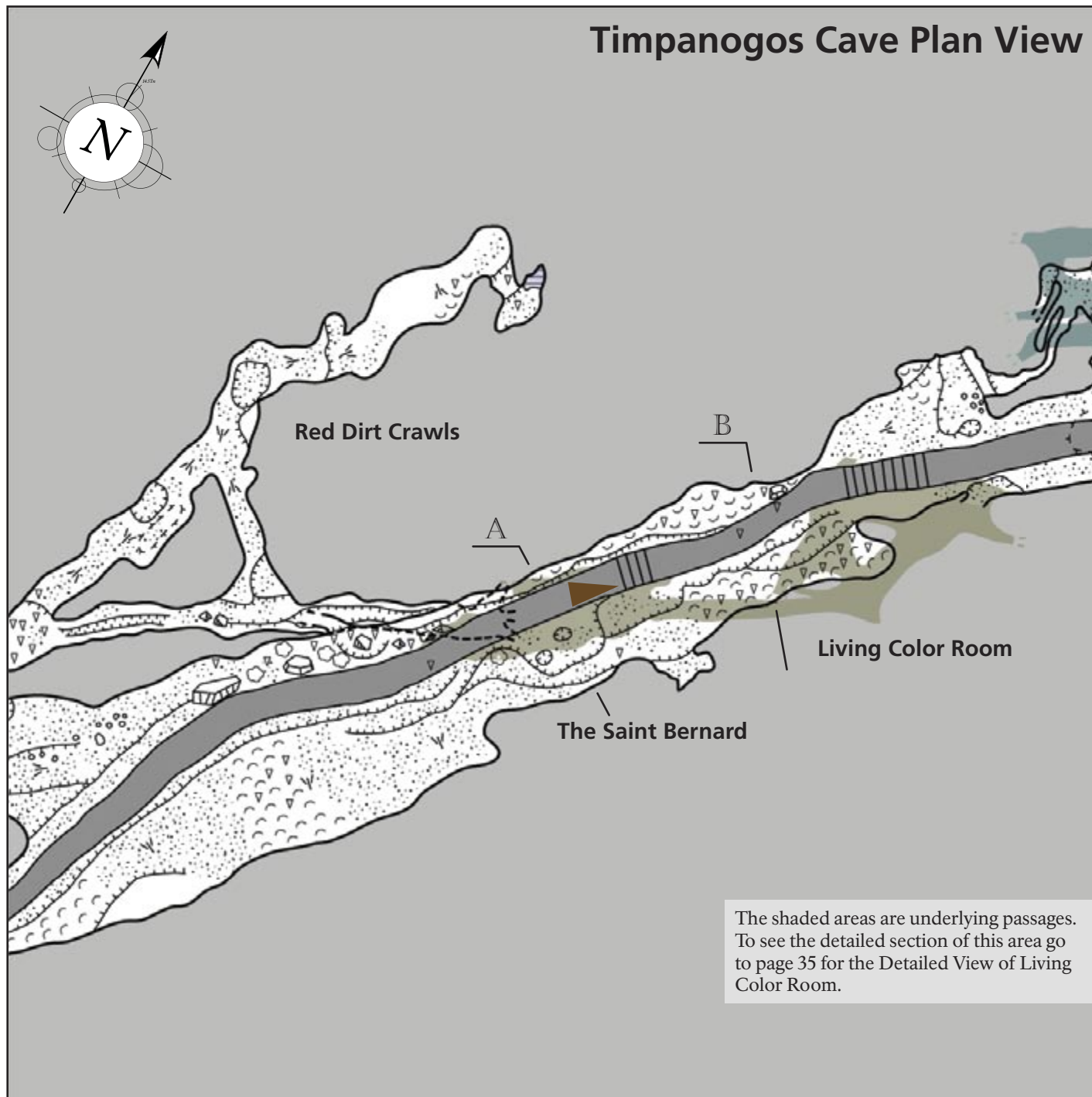


31 < Continued on Page > 36

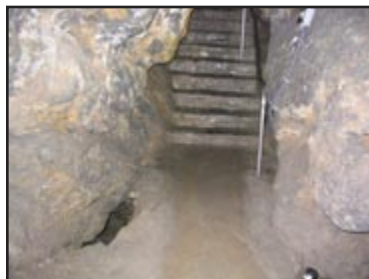
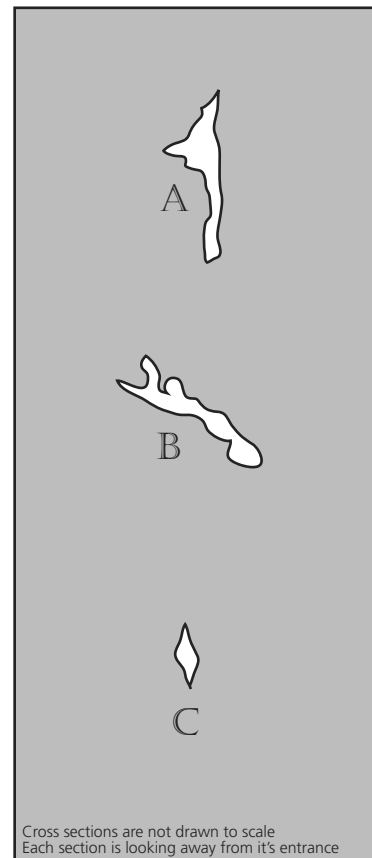




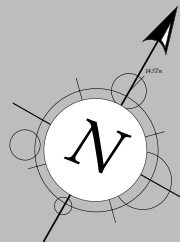
The Saint Bernard flowstone formation. NPS Photo.



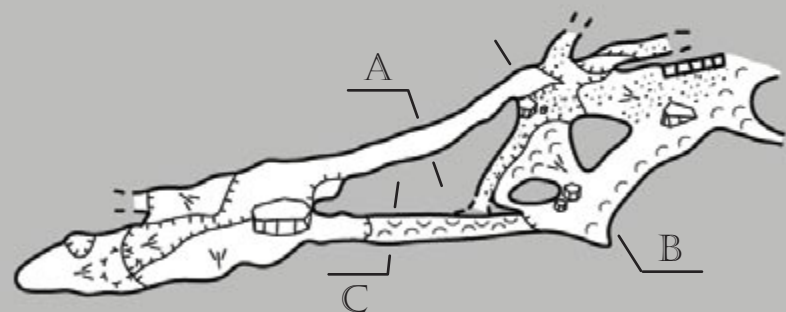
32 < Continued on Page > 37



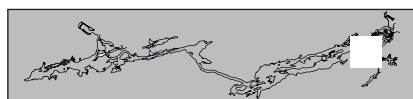
Hole on the left shows one entrance to the Living Color Room. It is located before the Bone Yard and just after the stairs past the Saint Bernard. This passage goes from where you see above, to just below the bridge before the Saint Bernard. The best way to describe the Living color room is tight, disgustingly muddy, and miserable. NPS Photo.



## Timpanogos Cave Plan View



### Detailed View Living Color Room *Connects on Page 34*



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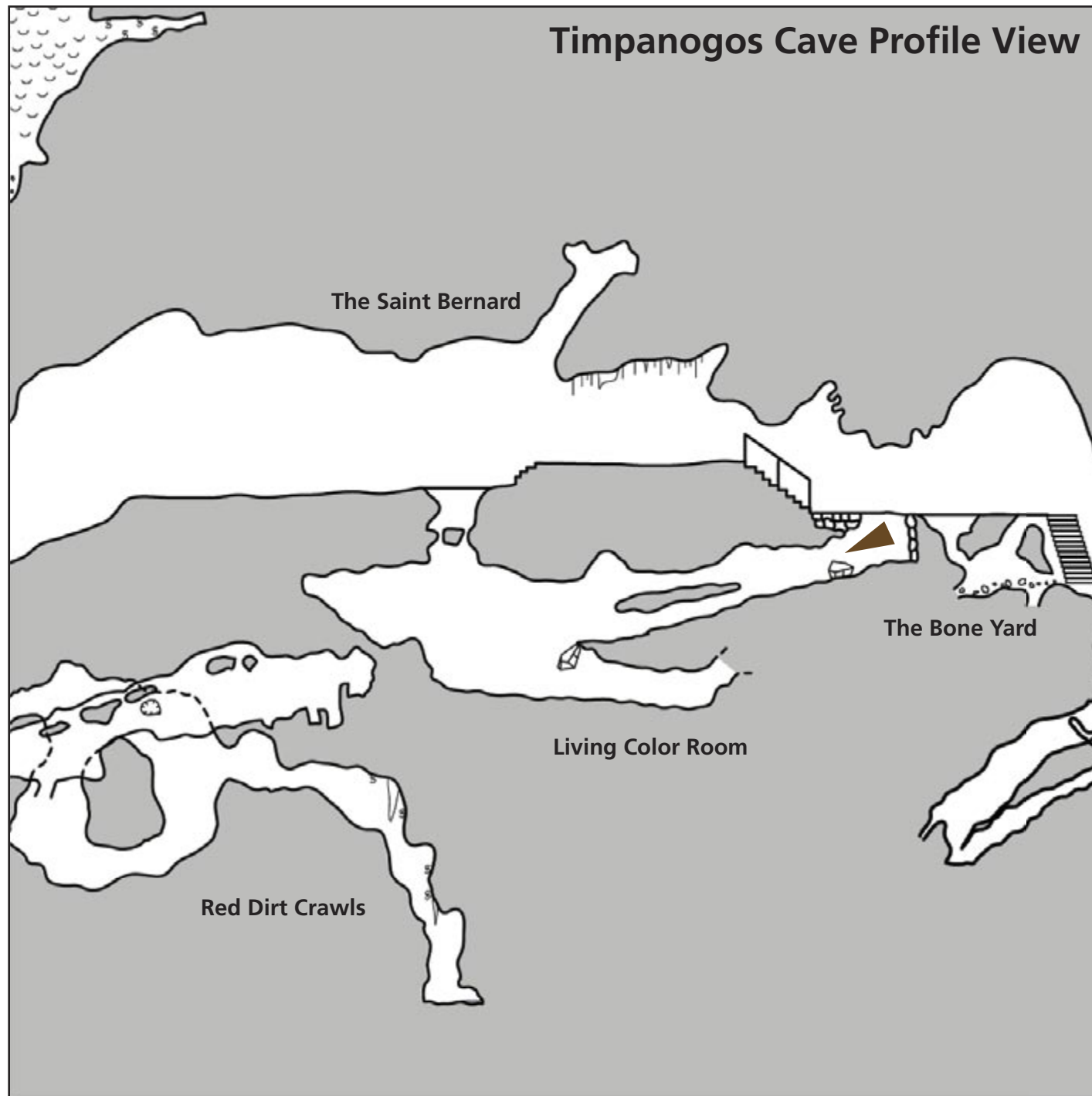
# Legend

Flowstone	—
Ledge	—
Stalactite	▽
Stalagmite	⬢
Helictite	Ⓕ
Pool	—
Main Trail	—
Intro to Caving Trail	—
Rocks	⬢
Boulders	⬢
Slope	—
Pit	⬢
Column	⬢
Ceiling Ledge	—
Ceiling Dome	⬢
Silt	⬢



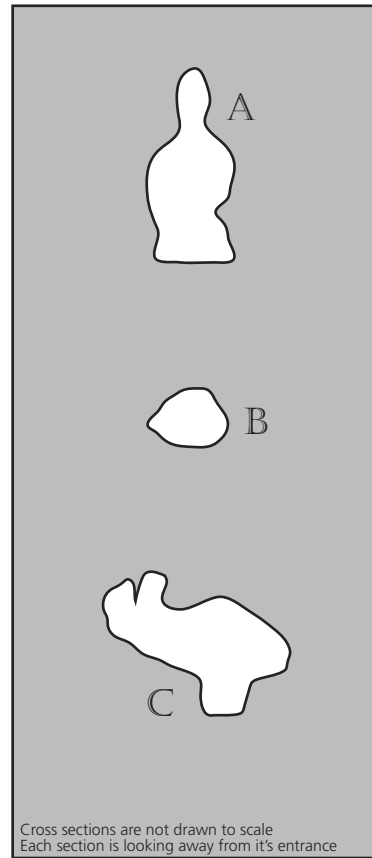
Brandon Kowallis squeezing through a clean section of the Living Color Room. Photo by Jon Jasper 2004.

**Brown Arrows** indicate where the photograph was taken and the direction the camera was pointing when the images was shot.

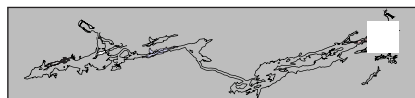
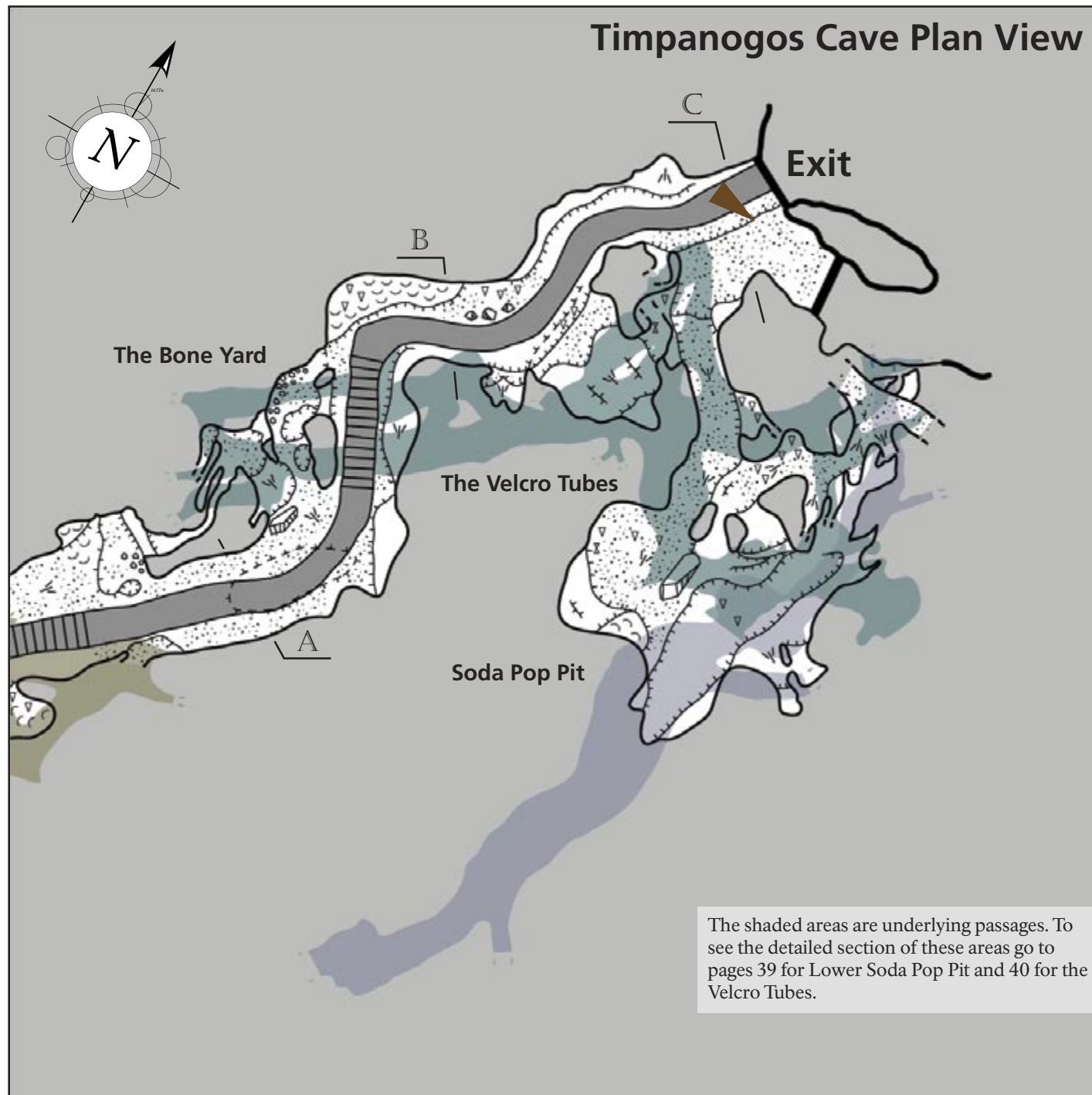


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Installing the cave gate at the Timpanogos Cave exit. NPS Photo.



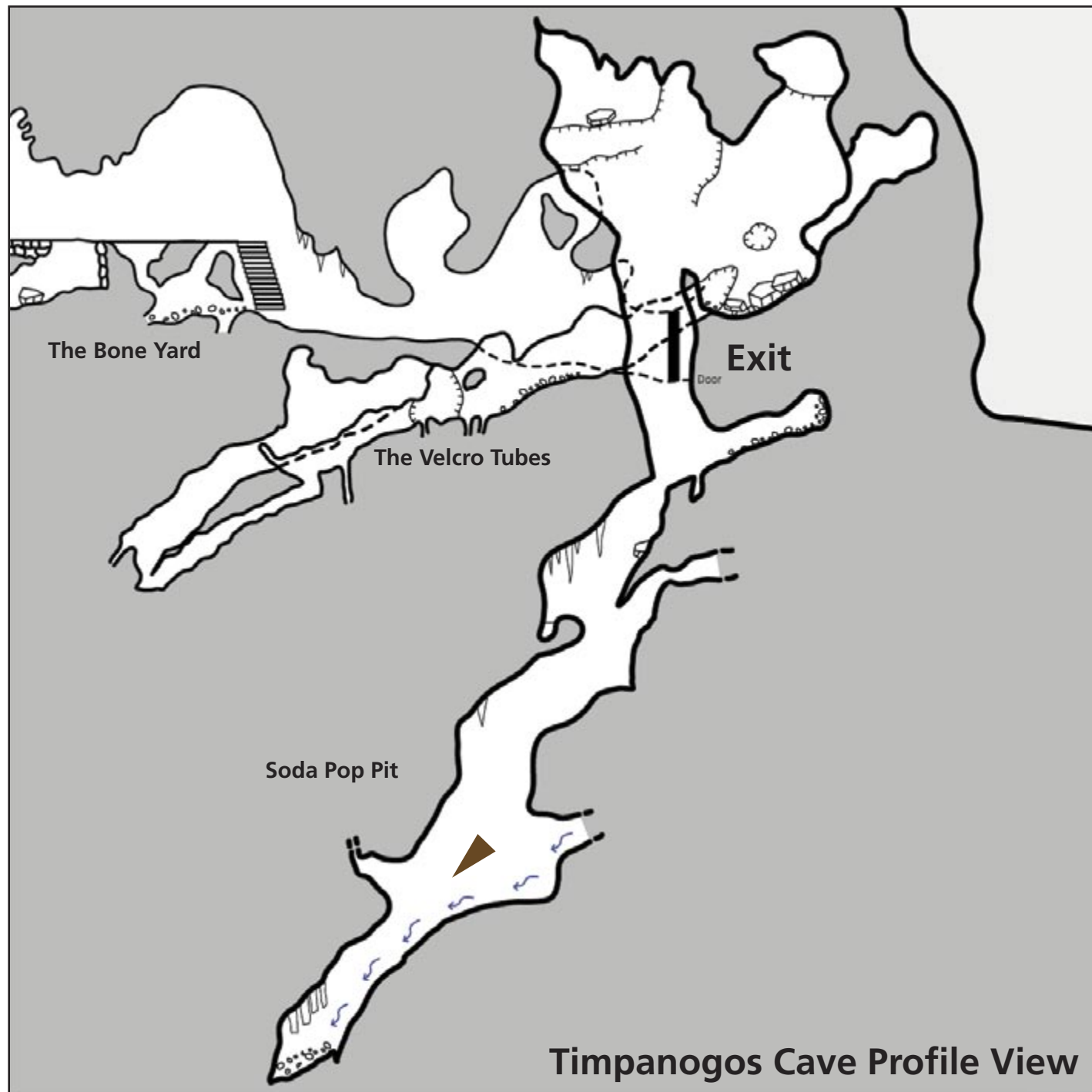
34 < Continued on Page

# Legend

Flowstone	~
Ledge	~
Stalactite	▽
Stalagmite	⬢
Helictite	Ⓕ
Pool	⬢
Main Trail	—
Intro to Caving Trail	- - -
Rocks	⬢
Boulders	⬢
Slope	Ⓐ
Pit	⬢
Column	Ⓐ
Ceiling Ledge	~
Ceiling Dome	⬢
Silt	⬢



Jon Jasper at the flooded bottom of Soda Pop Pit. NPS Photo.

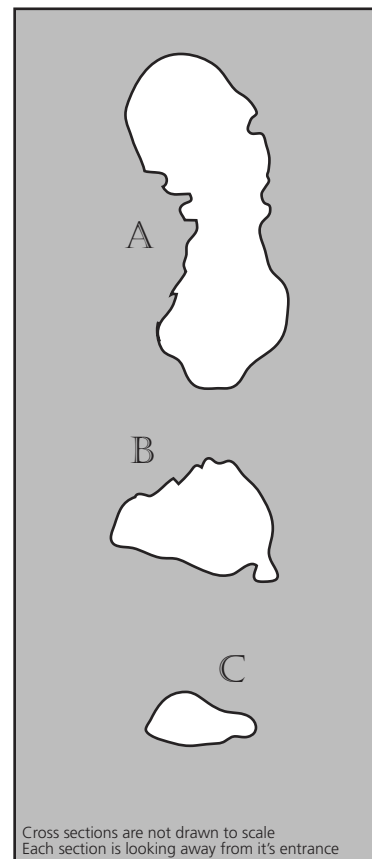


Timpanogos Cave Profile View

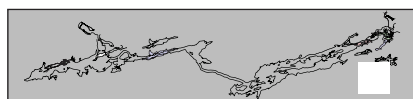
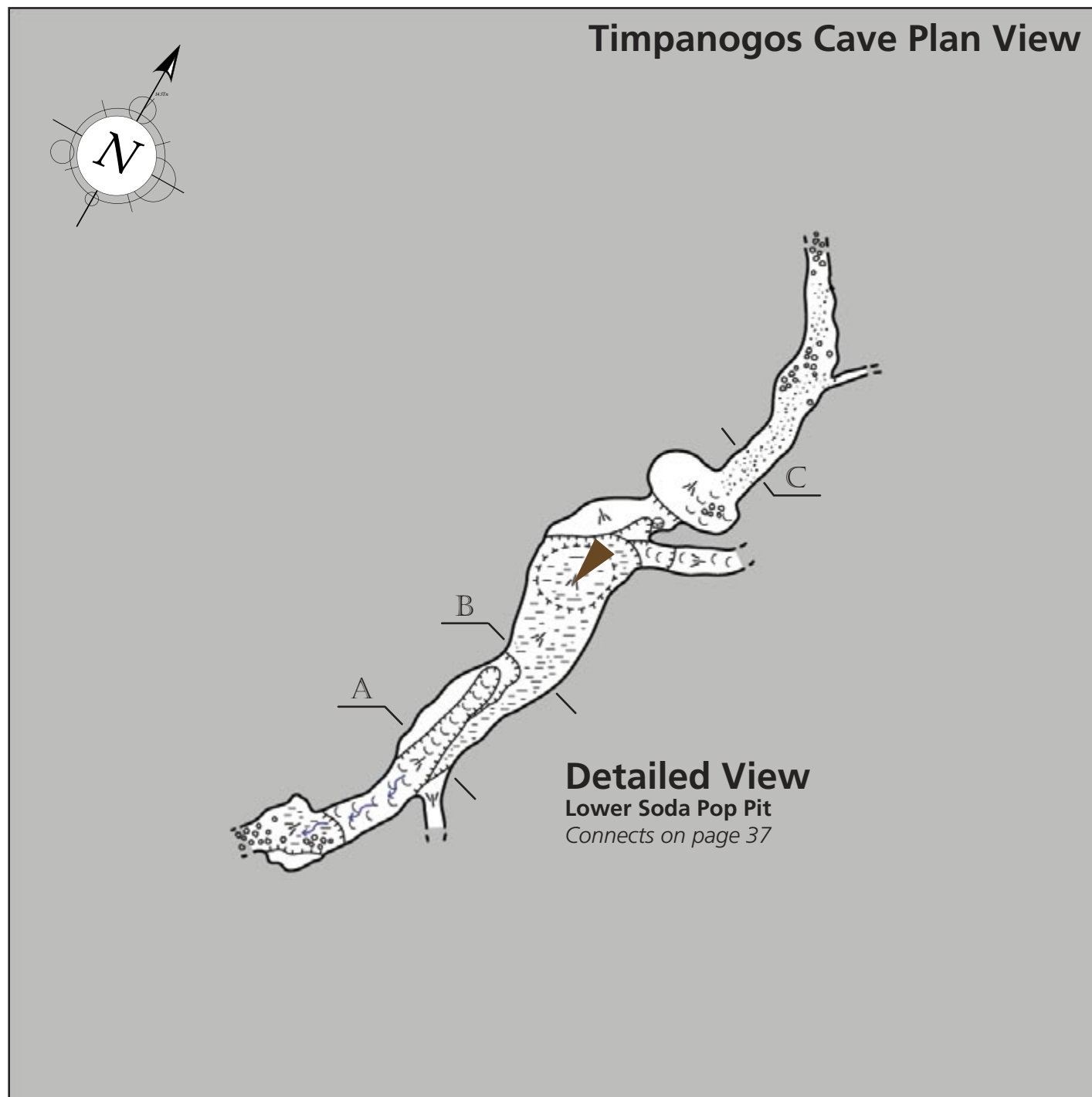
**Brown Arrows** indicate where the photograph was taken and the direction the camera was pointing when the images was shot.



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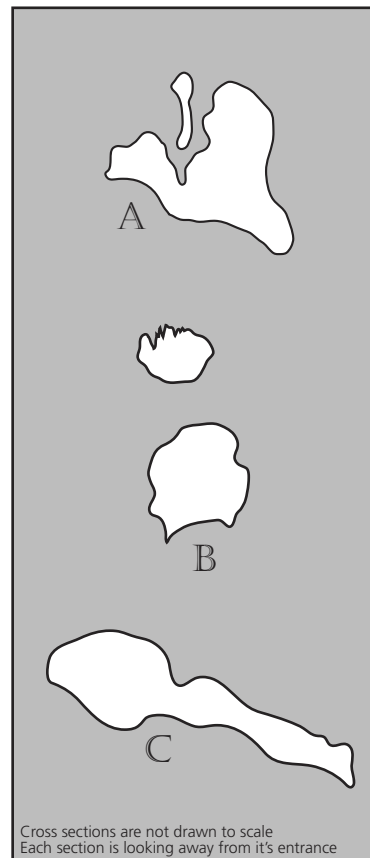


Cami Pulham preparing to descend into Soda Pop Pit. NPS Photo.

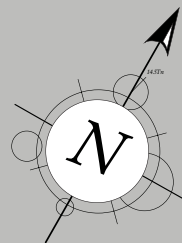


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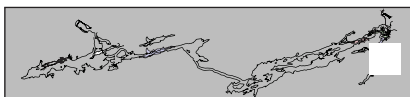
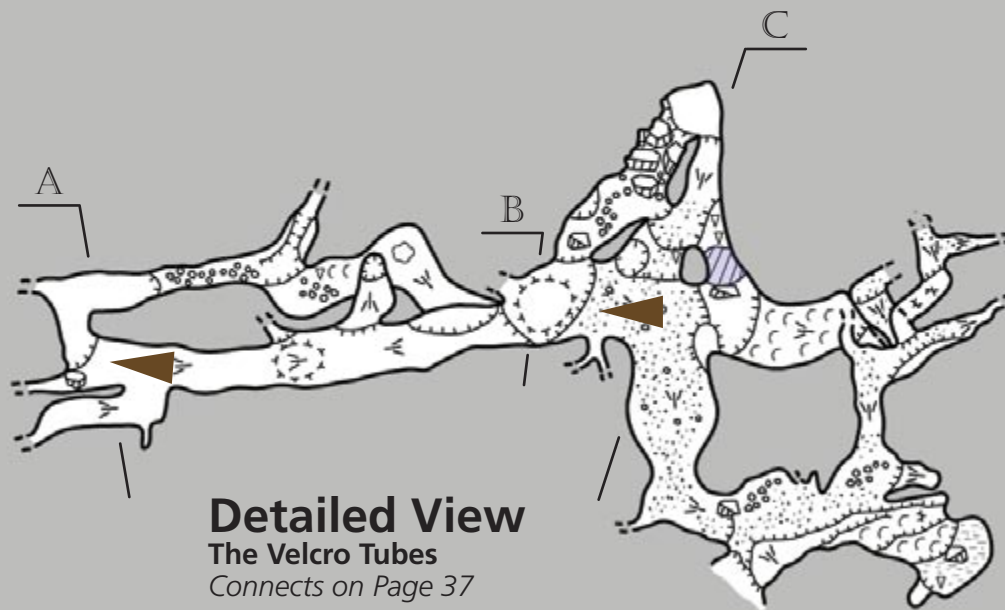




Jon Jasper (top) and Brandon Kowallis (bottom) in popcorn lined, velcro sections of the Velcro Tubes. NPS Photos.



## Timpanogos Cave Plan View



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